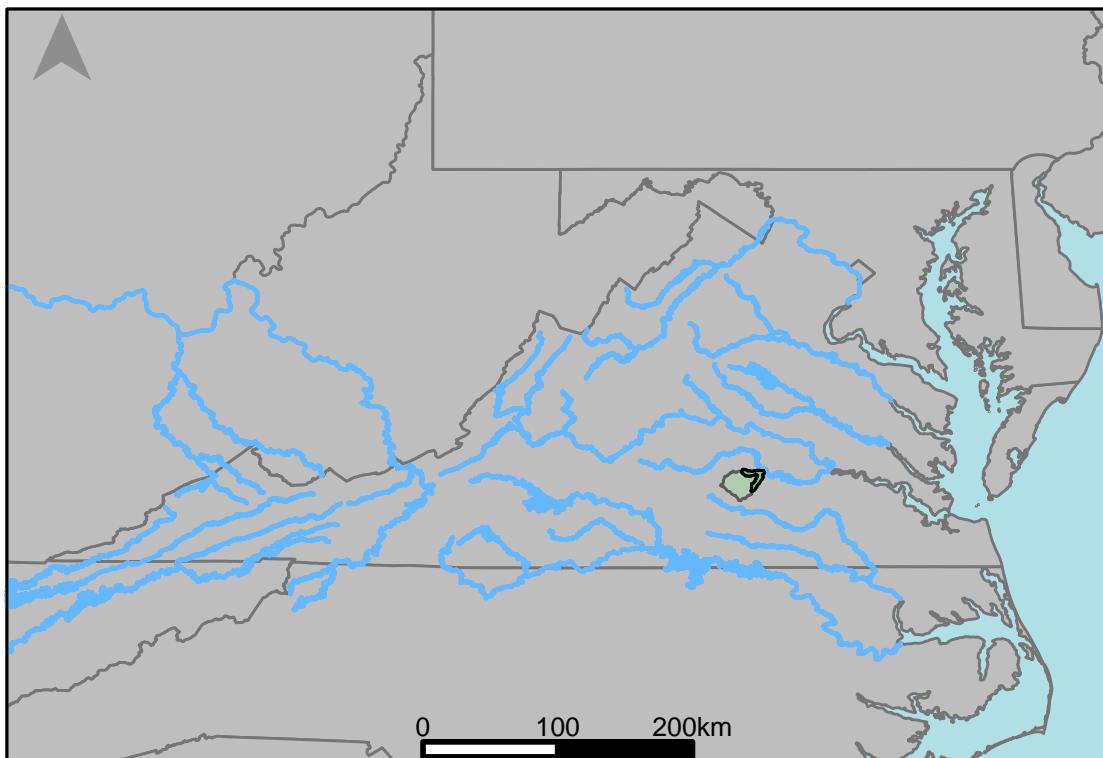


River Segment: JA2_7570_7480 - Scenario :
CFBASE30Y20180615 : VaHydro Run 120 (Base)
vs. VAHydro Run 121 (Climate Change)



The average daily discharge change between scenario 1 and scenario 2 for the 20 year timespan was 6.74847%, with 4.44% of its rolling three month time spans above 20% difference.

Table 1: Monthly Low Flows

	VAHydro Scen. 1	VAHydro Scen. 2	Pct. Difference
Jan. Low Flow	16.3	17.6	7.98
Feb. Low Flow	27.4	28.7	4.74
Mar. Low Flow	47.8	52.9	10.67
Apr. Low Flow	86.9	93.3	7.36
May Low Flow	122	136	11.48
Jun. Low Flow	122	122	0
Jul. Low Flow	78.4	78.3	-0.13
Aug. Low Flow	62.3	64.9	4.17
Sep. Low Flow	30.6	31.3	2.29
Oct. Low Flow	15.4	16.4	6.49
Nov. Low Flow	13.1	13.9	6.11
Dec. Low Flow	11.3	11.7	3.54

Table 2: Monthly Average Flows

	VAHydro Scen. 1	VAHydro Scen. 2	Pct. Difference
Overall Mean Flow	163	174	6.75
Jan. Mean Flow	256	277	8.2
Feb. Mean Flow	322	341	5.9
Mar. Mean Flow	371	381	2.7
Apr. Mean Flow	254	266	4.72
May Mean Flow	152	160	5.26
Jun. Mean Flow	83.5	86.4	3.47
Jul. Mean Flow	49.5	53.4	7.88
Aug. Mean Flow	49.3	54.3	10.14
Sep. Mean Flow	68.9	79.9	15.97
Oct. Mean Flow	80.8	88.8	9.9
Nov. Mean Flow	112	123	9.82
Dec. Mean Flow	166	184	10.84

Table 3: Monthly High Flows

	VAHydro Scen. 1	VAHydro Scen. 2	Pct. Difference
Jan. High Flow	91.2	104	14.04
Feb. High Flow	188	199	5.85
Mar. High Flow	259	313	20.85
Apr. High Flow	638	691	8.31
May High Flow	652	727	11.5
Jun. High Flow	780	810	3.85
Jul. High Flow	733	748	2.05
Aug. High Flow	357	406	13.73
Sep. High Flow	103	105	1.94
Oct. High Flow	87.5	94.9	8.46
Nov. High Flow	103	107	3.88
Dec. High Flow	83.4	86.3	3.48

Table 4: Period Low Flows

	VAHydro Scen. 1	VAHydro Scen. 2	Pct. Difference
Min. 1 Day Min	1.62	1.74	7.41
Med. 1 Day Min	6.42	6.83	6.39
Min. 3 Day Min	1.74	1.88	8.05
Med. 3 Day Min	6.95	7.4	6.47
Min. 7 Day Min	2.06	2.25	9.22
Med. 7 Day Min	7.83	8.35	6.64
Min. 30 Day Min	4.34	4.87	12.21
Med. 30 Day Min	17	18.7	10
Min. 90 Day Min	10.4	11.3	8.65
Med. 90 Day Min	36.6	39	6.56
7Q10	2.84	3.08	8.45
Year of 90-Day Min. Flow	1998	1998	0
Drought Year Mean	266	291	9.4
Mean Baseflow	80.2	83.4	3.99

Table 5: Period High Flows

	VAHydro Scen. 1	VAHydro Scen. 2	Pct. Difference
Max. 1 Day Max	4640	4700	1.29
Med. 1 Day Max	1810	2140	18.23
Max. 3 Day Max	3550	3590	1.13
Med. 3 Day Max	1450	1700	17.24
Max. 7 Day Max	2140	2260	5.61
Med. 7 Day Max	965	1060	9.84
Max. 30 Day Max	1120	1220	8.93
Med. 30 Day Max	449	482	7.35
Max. 90 Day Max	833	900	8.04
Med. 90 Day Max	306	322	5.23

Table 6: Non-Exceedance Flows

	VAHydro Scen. 1	VAHydro Scen. 2	Pct. Difference
1% Non-Exceedance	3.97	4.21	6.05
5% Non-Exceedance	10.2	10.9	6.86
50% Non-Exceedance	87.1	91.5	5.05
95% Non-Exceedance	537	573	6.7
99% Non-Exceedance	1360	1480	8.82
Sept. 10% Non-Exceedance	8.35	9.21	10.3

Fig. 1: Hydrograph

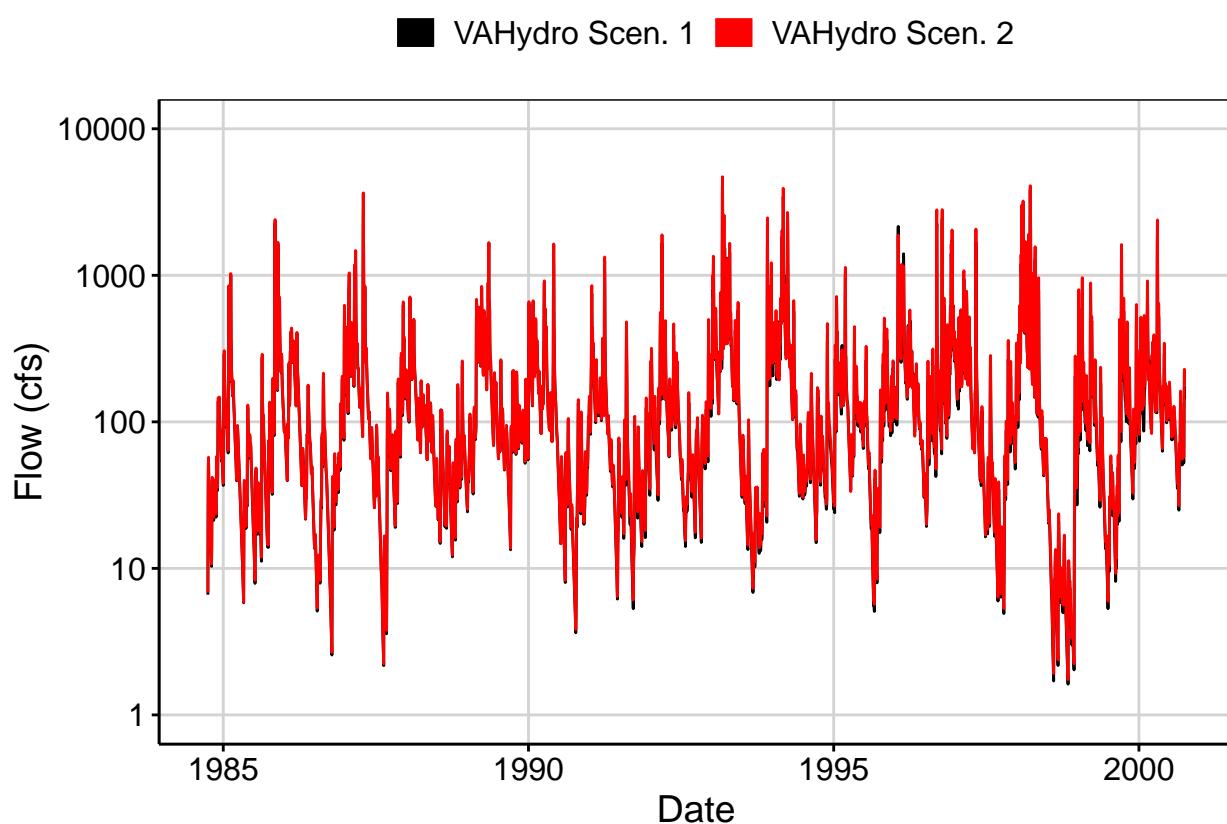


Fig. 2: Zoomed Hydrograph

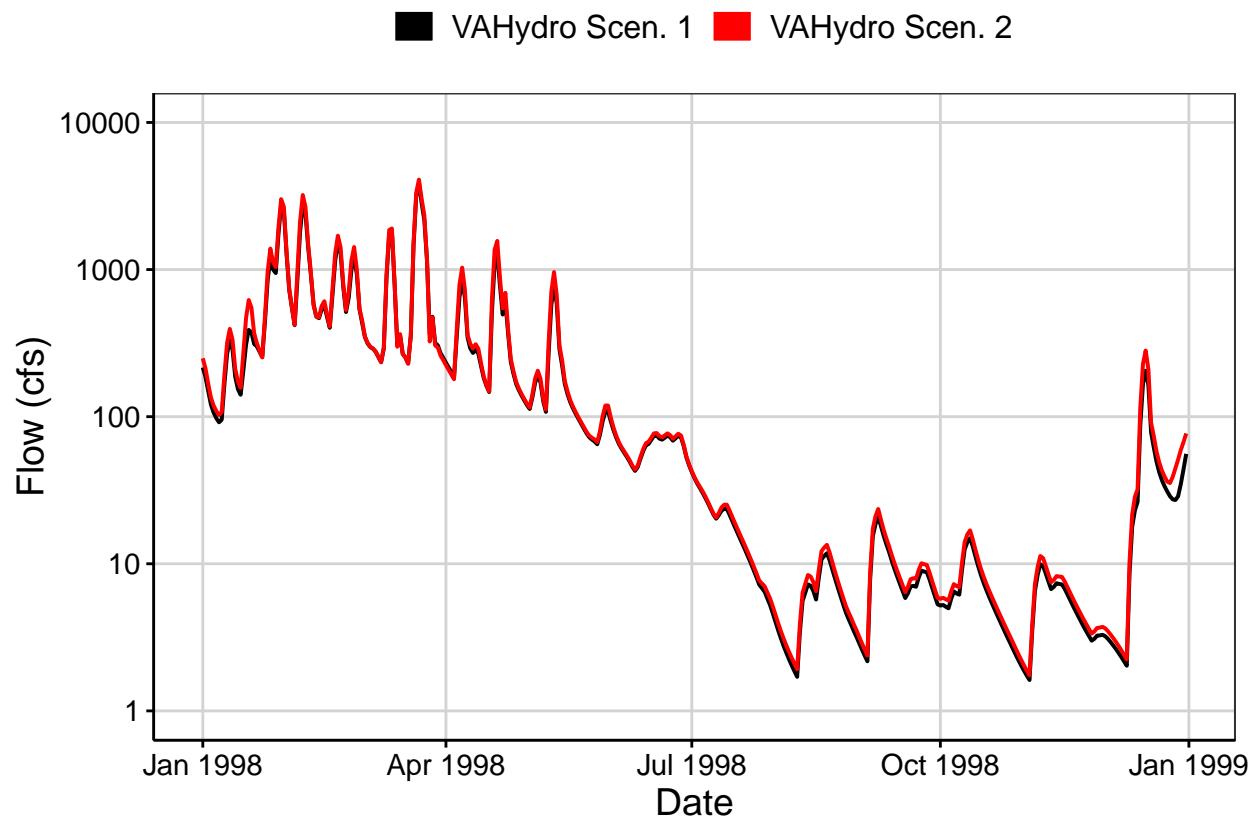


Fig. 3: Flow Exceedance

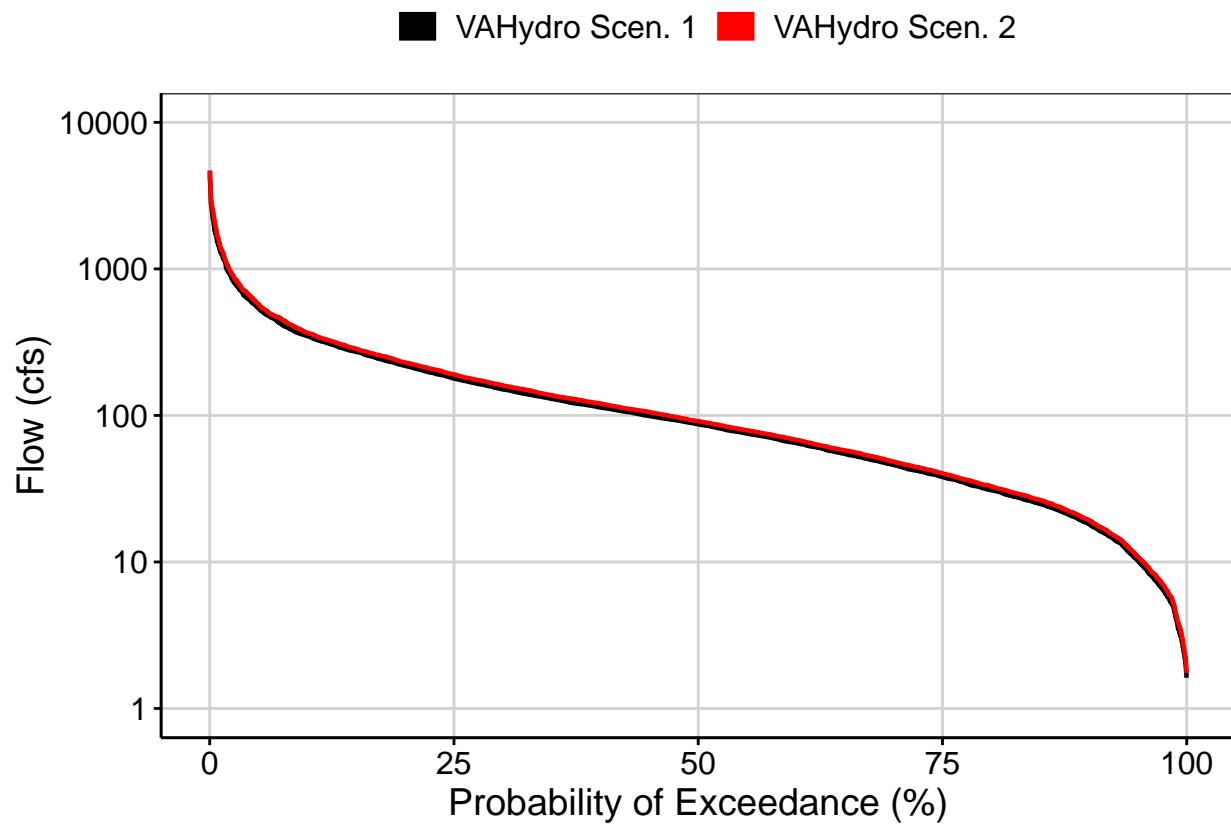


Fig. 4: Baseflow

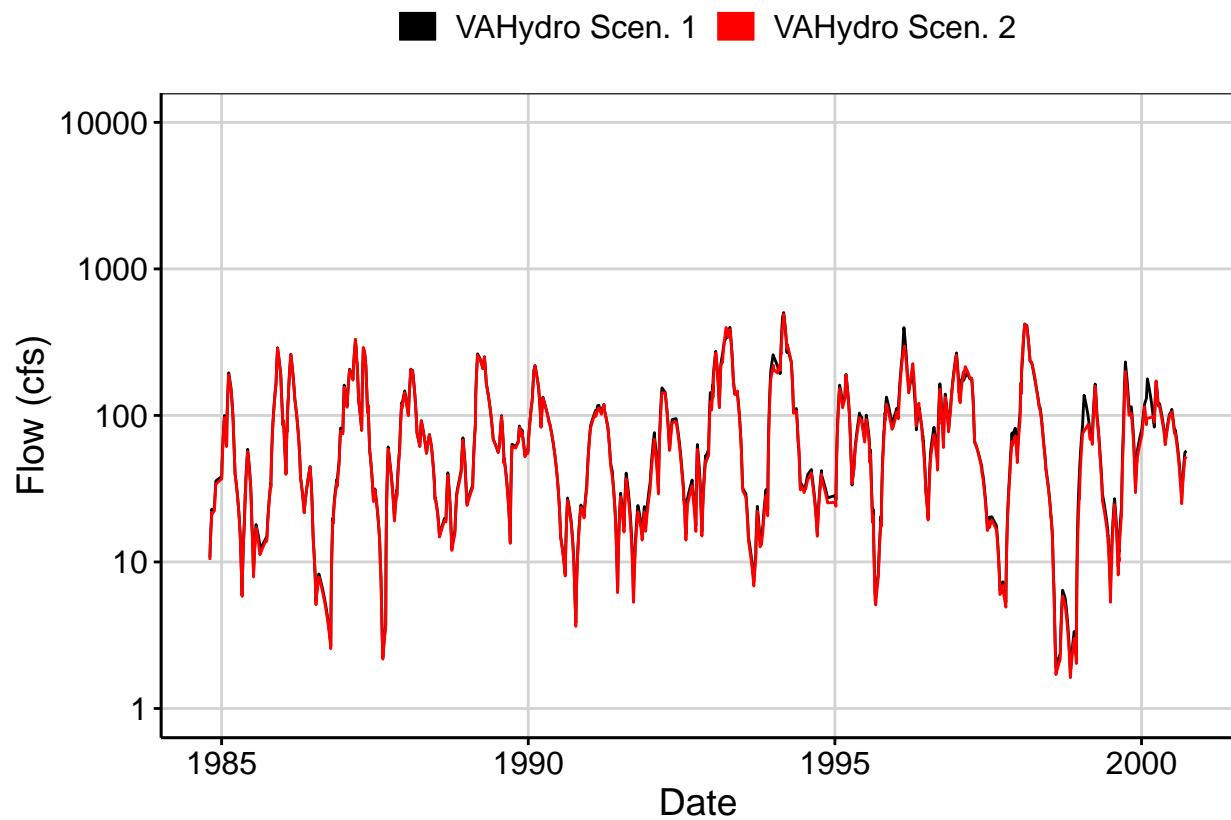


Fig. 5: Combined Baseflow

dro Scen. 1 Baseflow ■ VAHydro Scen. 1 Flow ■ VAHydro Scen. 2 Baseflow ■ V

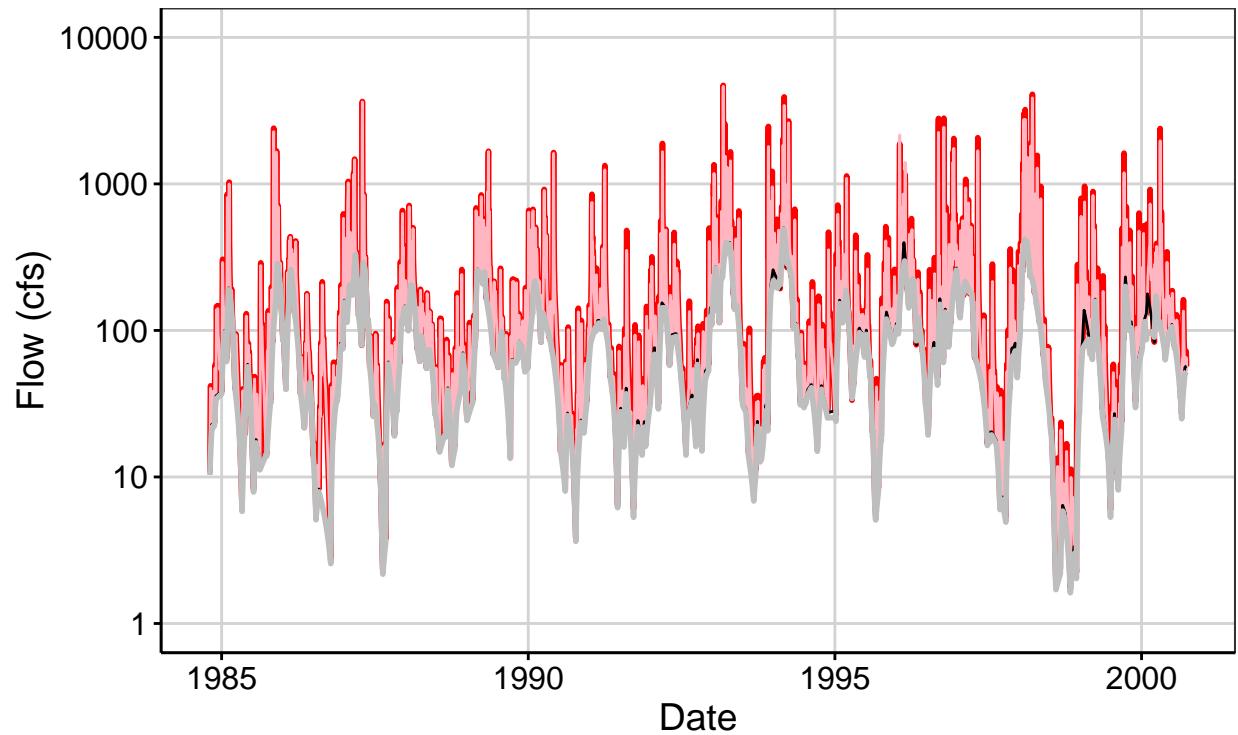


Fig. 6: Largest Difference Segment

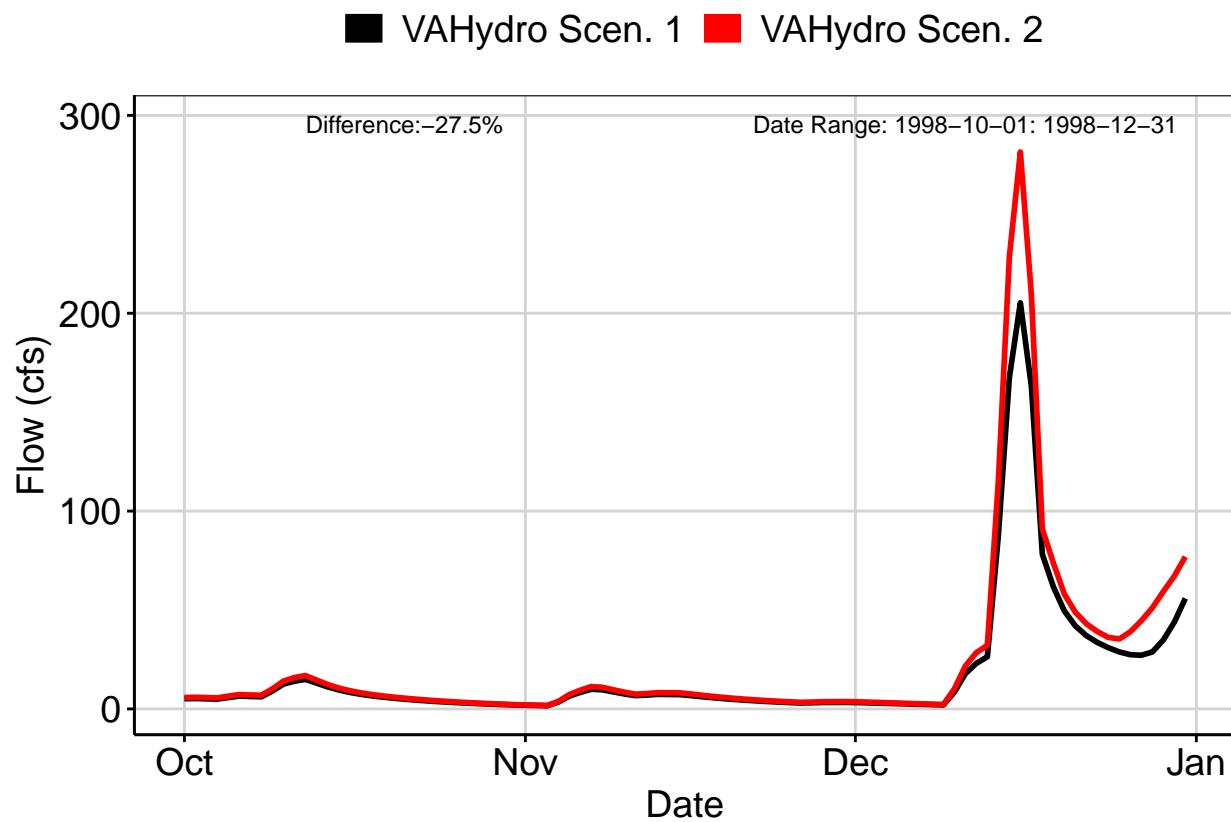


Fig. 7: Second Largest Difference Segment

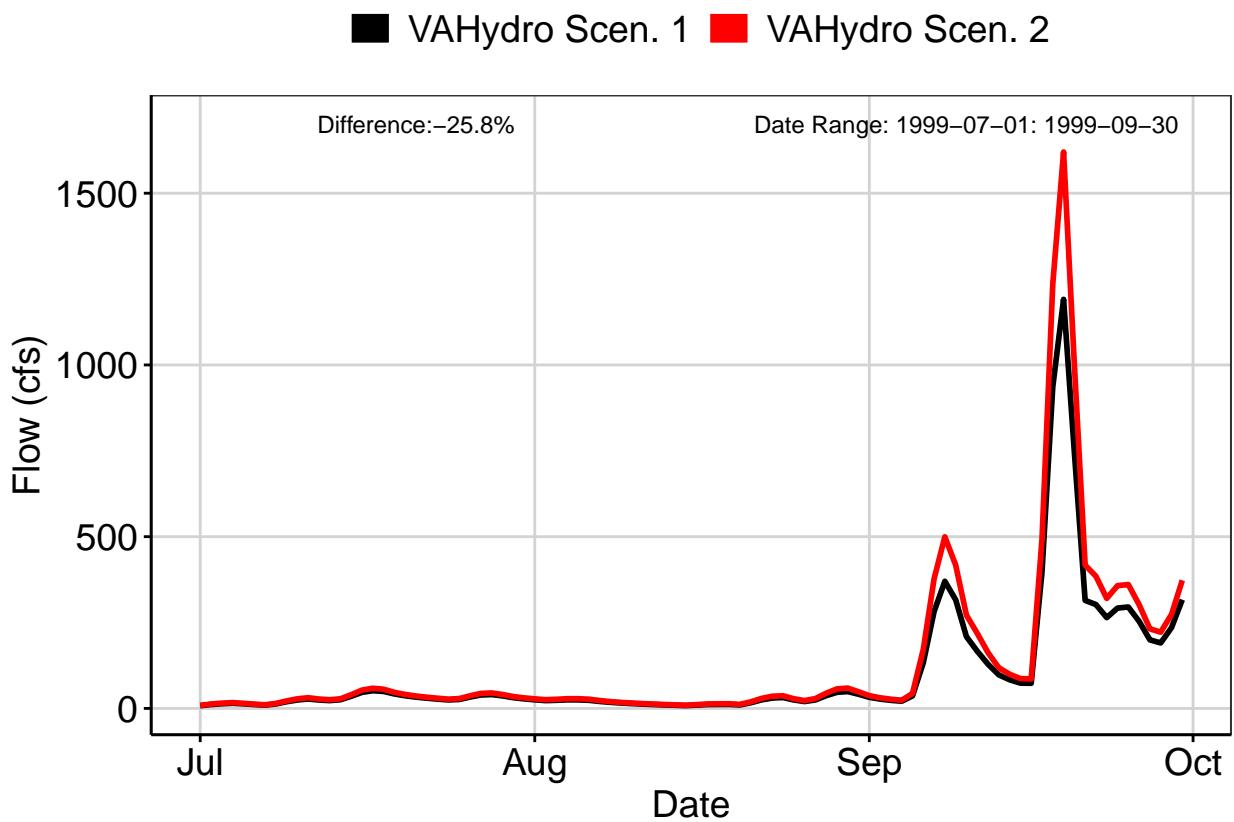


Fig. 8: Third Largest Difference Segment

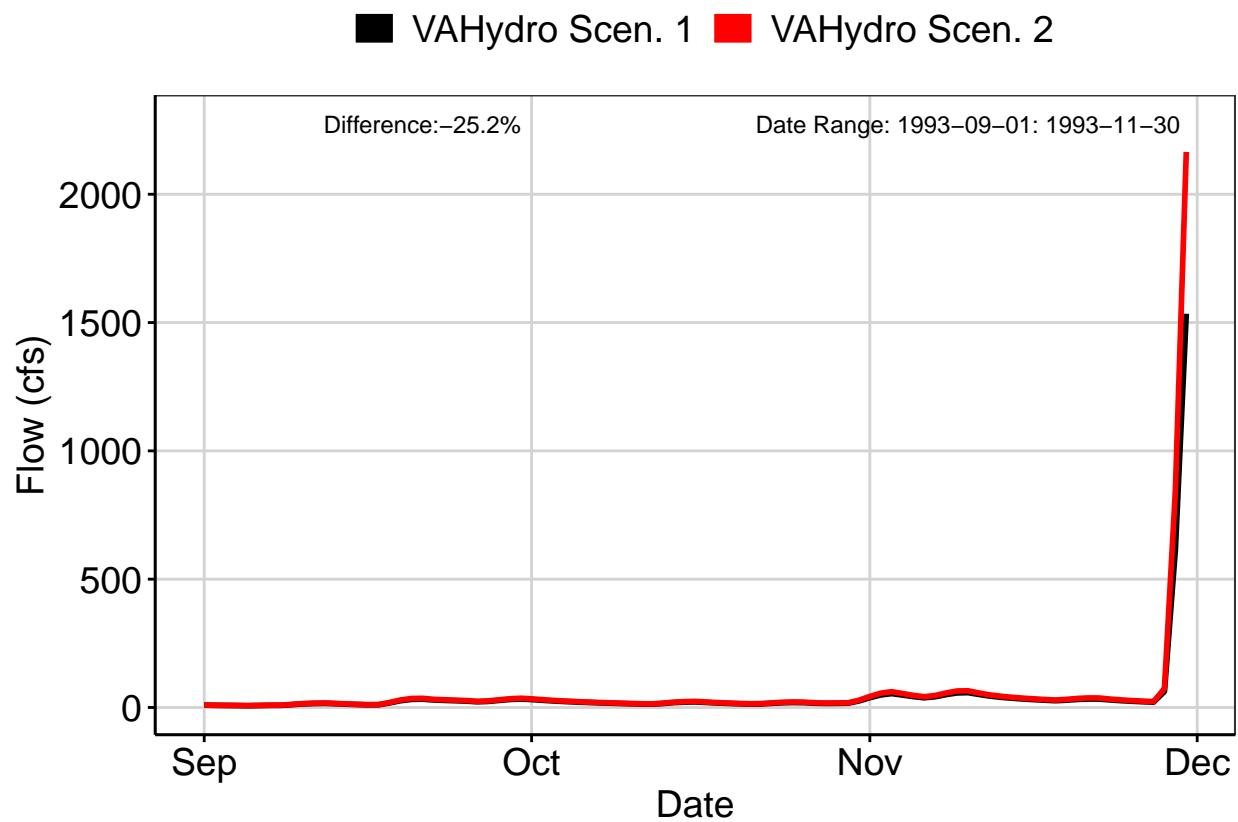


Fig. 9A: Residuals Plot

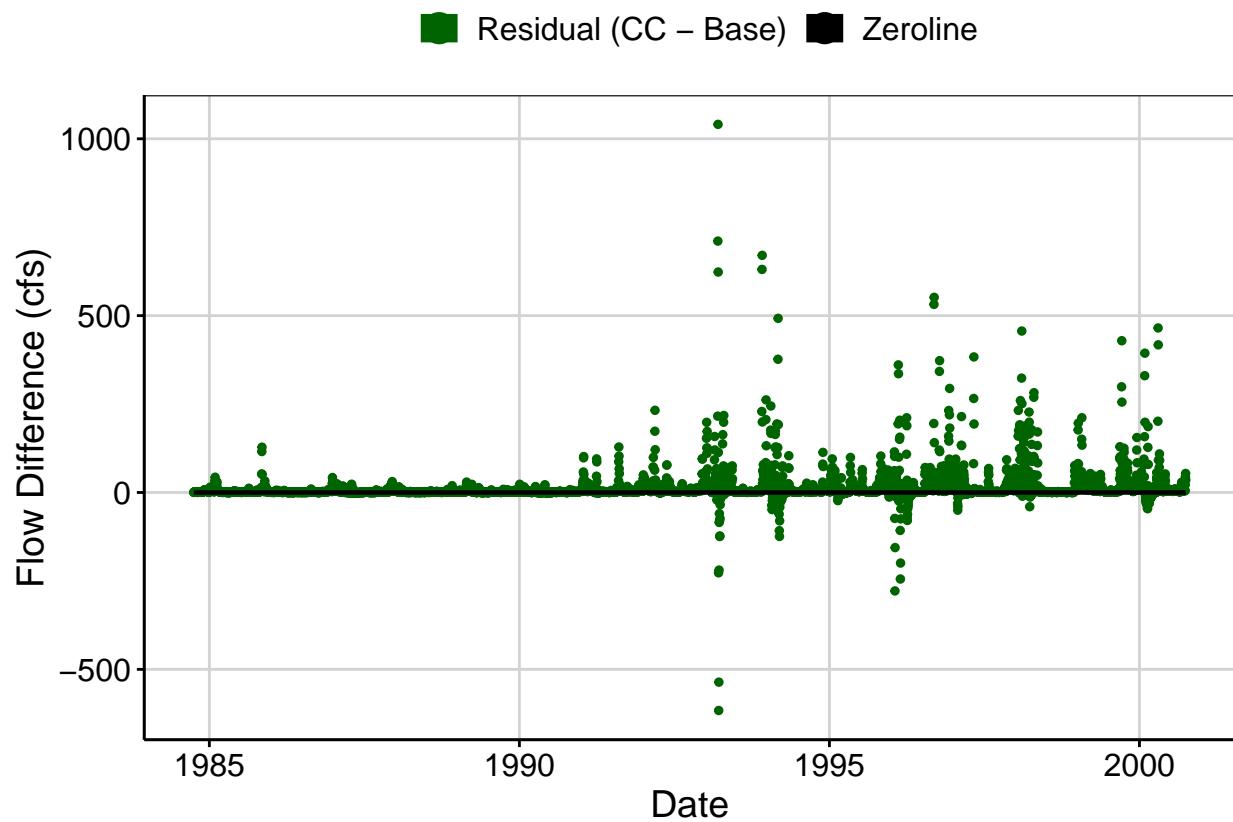


Fig. 9B: Area Weighted Residuals Plot

