

MAIN STREAM MONITORING STATIONS

Monitoring Station GC1

This monitoring station is located on Georges Creek in Fairchance at the intersection of Elm Street and Main Street. The sub-watersheds which contribute to the analysis of this station are 1L Askon Hollow, 1R, White Rock Hollow, and 13% of the flow of 2L, Cave Hollow. The monthly average water quality data for this monitoring station can be found in Table 5. The following are averages of the pollution load and flow of Georges Creek at this station. The percentage of each pollution value compared to the corresponding pollution value at Monitoring Station GC8 on Georges Creek near New Geneva is also given. The location of this station can be found on Drawing 7316-7.

	<u>Averages</u>		<u>Percent of Monitoring Station GC8</u>	
pH	5.8			
Net Hot Acidity	0	PPD	0	%
Ferrous Iron	1	PPD	271.90	%
Total Iron	30	PPD	1.08	%
Sulfate	2,083	PPD	3.04	%
Flow	8,398,080	GPD	14.14	%

TABLE 5
MONTHLY AVERAGE WATER QUALITY DATA
FOR MONITORING STATION GC1
GEORGES CREEK WATERSHED

Date of Sample	pH	Hot Acid CaCO ₃		Alkalinity		Ferrous Iron		Iron as Fe		Sulfate		Flow GPM
		PPM	#/Day	PPM	#/Day	PPM	#/Day	PPM	#/Day	PPM	#/Day	
8-27-73	6.5	-	-	16	326.56	.3	6.12	.3	6.12	19	387.79	1,698
11-2-73	5.8	6	761.30	8	1015.06	-	-	.29	36.80	30	3806.49	10,556
11-28-73	6.2	10	1762.85	16	2820.57	-	-	.74	130.45	35	6169.99	14,666
12-17-73	5.8	6	505.2	16	1347.2	-	-	-	-	20	1684.0	7,005
2-5-74	5.8	10	348.2	20	696.4	-	-	.15	5.22	30	1044.6	2,897
2-15-74	4.8	4	51.25	14	179.38	-	-	.74	9.48	6	76.87	1,066
3-18-74	5.6	2	70.65	12	423.92	-	-	.61	21.55	40	1413.07	2,939
Averages	5.8	5.43	499.92	14.57	972.73	.04	.87	.40	29.95	25.71	2083.3	5,832

MAIN STREAM MONITORING STATIONS

Monitoring Station GC2

This monitoring station is located on Georges Creek south of Fairchance along T 510 near the Baltimore and Ohio Railroad tracks. The sub-watersheds which contribute to the analysis of this station are 2R, Muddy Run, 68% of the flow of 3L, un-named, and 87% of the flow of 2L, un-named, along with those contributing to Monitoring Station GC1. The monthly average water quality data for this monitoring station can be found in Table 6. The following are averages of the pollution load and flow of Georges Creek at this station. The percentage of each pollution value compared to the corresponding pollution value at Monitoring Station GC8 on Georges Creek near New Geneva is also given. The location of this station can be found on Drawing 7316-7.

	<u>Averages</u>		<u>Percent of Monitoring Station GC8</u>	
pH	6.0			
Net Hot Acidity	0	PPD	0	%
Ferrous Iron	91	PPD	28,284.00%	
Total Iron	463	PPD	16.72%	
Sulfate	7,147	PPD	10.43%	
Flow	18,973,440	GPD	31.94%	

TABLE 6
MONTHLY AVERAGE WATER QUALITY DATA
FOR MONITORING STATION GC2
GEORGES CREEK WATERSHED

Date of Sample	pH	Hot Acid CaCO ₃		Alkalinity		Ferrous Iron		Iron as Fe		Sulfate		Flow CPM
		PPM	#/Day	PPM	#/Day	PPM	#/Day	PPM	#/Day	PPM	#/Day	
8-27-74	6.5	-	-	28	469.50	.5	8.38	.7	11.74	24	402.43	1,395
11-2-73	6.3	6	1012.49	24	4049.97	-	-	.59	99.56	45	7593.70	14,039
11-28-73	6.2	8	4465.67	30	16746.26	1.12	625.19	4.94	2757.55	44	24561.19	46,440
12-17-73	5.8	8	1352.9	18	3044.18	-	-	1.05	177.57	45	7610.5	14,070
2-8-74	6.2	4	351.8	28	2463.3	-	-	1.36	119.64	58	5102.5	7,319
2-15-74	5.3	4	136.5	30	1024	-	-	.89	30.38	53	1809	2,840
3-18-74	5.8	2	147.34	30	2210.12	-	-	.61	44.94	40	2946.82	6,129
Averages	6.0	4.57	1066.67	26.86	4286.76	.23	90.51	1.45	463.05	44.14	7146.59	13,176

MAIN STREAM MONITORING STATIONS

Monitoring Station GC3

This station is located on Georges Creek south of Smithfield on T 500. The sub-watersheds which contribute to the analysis of this station are 3R, 4R, 5R and 4L, all un-named, as well as 32% of the flow of 3L, un-named, and 99% of the flow of 6R, un-named, along with those contributing to Monitoring Station GC2. The monthly average water quality data for this monitoring station can be found in Table 7. The following are averages of the pollution load and flow of Georges Creek at this station. The percentage of each pollution value compared to the corresponding pollution value at Monitoring Station GC8 on Georges Creek near New Geneva is also given. The location of this station can be found on Drawing 7316-7.

	<u>Averages</u>		<u>Percent of Monitoring Station GC8</u>	
pH	6.2			
Net Hot Acidity	0	PPD	0	%
Ferrous Iron	1	PPD	434.38	%
Total Iron	143	PPD	5.17	%
Sulfate	9,614	PPD	14.03	%
Flow	15,704,640	GPD	26.44	%

TABLE 7
 MONTHLY AVERAGE WATER QUALITY DATA
 FOR MONITORING STATION GC3
 GEORGES CREEK WATERSHED

Date of Sample	pH	Hot Acid CaCO ₃		Alkalinity		Ferrous Iron		Iron as Fe		Sulfate		Flow GPM
		PPM	#/Day	PPM	#/Day	PPM	#/Day	PPM	#/Day	PPM	#/Day	
8-28-73	6.6	-	-	28	465.80	.5	8.32	.7	11.64	86	1431	1,384
11-6-73	6.1	2	626.17	30	9392.55	-	-	.74	231.68	76	23794.46	26,047
11-28-73		Cross-Section Stake Pulled Out										
12-17-73	6.2	4	906.64	16	3626.58	-	-	1.52	344.5	77	17452.9	18,857
2-8-74	6.1	4	387.71	22	2132.4	-	-	1.20	116.3	79	7657.4	8,064
2-18-74	6.4	10	410.6	20	821.2	-	-	1.36	55.84	78	3202.7	3,416
3-18-74	6.0	6	553.02	32	2949.42	-	-	1.08	99.54	45	4147.62	7,668
Averages	6.2	4.33	480.69	24.67	3231.33	.08	1.39	1.10	143.25	73.50	9614.4	10,906

MAIN STREAM MONITORING STATIONS

Monitoring Station GC4

This monitoring station is located on Georges Creek south of Smithfield on U.S. Route 119. The sub-watersheds which contribute to the analysis of this station are 5L, Mountain Creek, 6L, 7R, both un-named, 1% of the flow of 6R, un-named, and 86% of the flow of 7L, un-named, along with those contributing to Monitoring Station GC3. The monthly average water quality data for this monitoring station can be found in Table 8. The following are averages of the pollution load and flow of Georges Creek at this station. The percentage of each pollution value at Monitoring Station GC8 on Georges Creek is also given. The location of this station can be found on Drawing 7316-7.

	<u>Averages</u>		<u>Percent of</u> <u>Monitoring Station GC8</u>
pH 5.1			
Net Hot Acidity	23	PPD	0.10%
Ferrous Iron	1	PPD	403.13%
Total Iron	1,307	PPD	47.17%
Sulfate	26,314	PPD	38.41%
Flow	56,689,920	GPD	95.44%

TABLE 8
 MONTHLY AVERAGE WATER QUALITY DATA
 FOR MONITORING STATION GC4
 GEORGES CREEK WATERSHED

Date of Sample	pH	Hot Acid CaCO ₃		Alkalinity		Ferrous Iron		Iron as Fe		Sulfate		Flow GPM
		PPM	#/Day	PPM	#/Day	PPM	#/Day	PPM	#/Day	PPM	#/Day	
3-28-73	4.9	7	126.46	-	-	.5	9.03	1.2	21.68	82	1,482	1,503
11-6-73	6.3	6	6945.88	14	16207.05	-	-	2.01	2326.87	59	68,301.13	96,310
11-21-73	5.6	8	6563.50	6	4922.62	-	-	2.01	1649.08	31	25,433.55	68,256
12-17-73	4.5	20	11541.6	-	-	-	-	5.15	2971.9	69	39,818.5	48,010
2-8-74	5.1	6	1734.31	6	1734.3	-	-	3.37	974.1	78	22,546	24,048
2-15-74	4.0	10	688	-	-	-	-	3.96	272.4	82	5,641	5,724
3-19-74	5.3	6	2288.01	18	6864.02	-	-	2.44	930.46	55	20,973.4	31,725
Averages	5.1	9.00	4269.7	6.29	4246.86	.07	1.29	2.88	1306.64	65.14	26,313.7	39,368

MAIN STREAM MONITORING STATIONS

Monitoring Station GC5

This station is located on Georges Creek along T 466. The sub-watersheds which contribute to this station are 8R, un-named, 9R, York Run, and 13% of the flow of 7L, un-named, along with those contributing to Monitoring Station GC4. The monthly average water quality data for this Monitoring Station can be found in Table 9. The following are averages of the pollution load and flow of Georges Creek at this station. The percentage of each pollution value compared to the corresponding pollution value at Monitoring Station GC8 on Georges Creek near New Geneva is also given. The location of this station can be found on Drawing 7316-7.

	<u>Averages</u>		<u>Percent of</u> <u>Monitoring Station GC8</u>
pH 3.9			
Net Hot Acidity	39,094	PPD	162.61%
Ferrous Iron	142	PPD	44,443.00%
Total Iron	3,157	PPD	113.78%
Sulfate	73,079	PPD	106.66%
Flow	56,905,920	GPD	95.80%

TABLE 9
MONTHLY AVERAGE WATER QUALITY DATA
FOR MONITORING STATION GC5
GEORGES CREEK WATERSHED

Date of Sample	pH	Hot Acid CaCO ₃		Alkalinity		Ferrous Iron		Iron as Fe		Sulfate		Flow GPM
		PPM	#/Day	PPM	#/Day	PPM	#/Day	PPM	#/Day	PPM	#/Day	
8-30-73	3.1	140	9,838	-	-	.9	63.24	5	351.34	290	20,378	5,846
11-6-73	4.4	30	20,445.3	2	1363.02	-	-	4.15	2828.27	144	98,137.43	56,698
11-20-73	4.7	160	138,540	2	1731.75	-	-	2.69	2329.20	71	61,476.97	72,036
12-18-73	3.8	60	38,276.2	-	-	-	-	9.16	5843.5	165.5	105,588.6	53,073
1-21-74	3.9	58	20,881	-	-	-	-	7.13	2566.9	225	81,005	29,952
2-18-74	3.4	120	14,755	-	-	2.24	275.4	21.73	2672	225	27,667	10,230
3-19-74	3.8	58	34,017	-	-	1.12	656.88	9.33	5472.08	200	117,300.8	48,794
Averages	3.9	89.43	39,536	.57	442.11	.61	142.22	8.46	3151.9	188.64	73,079	39,518

MAIN STREAM MONITORING STATIONS

Monitoring Station GC6

This monitoring station is located on Georges Creek along T 354. The sub-watersheds which contribute to the analysis of this station are 8L, 10R, 11R, all un-named, 12R, War Branch, 1% of the flow of 7L, and 2% of the flow of 9L, both un-named, along with those contributing to Monitoring Station GC5. The monthly average water quality data for this monitoring station can be found in Table 10. The following are averages of the pollution load and flow of Georges Creek at this station. The percentage of each pollution value compared to the corresponding pollution value at Monitoring Station GC8 on Georges Creek near New Geneva is also given. The location of this station can be found on Drawing 7316-7.

	<u>Averages</u>		<u>Percent of Monitoring Station GC8</u>
pH 4.0			
Net Hot Acidity	17,381	PPD	72.30%
Ferrous Iron	185	PPD	57,722.00%
Total Iron	1,995	PPD	72.02%
Sulfate	89,067	PPD	130.00%
Flow	34,823,520	GPD	58.63%

TABLE 10
 MONTHLY AVERAGE WATER QUALITY DATA
 FOR MONITORING STATION GC6
 GEORGES CREEK WATERSHED

Date of Sample	pH	Hot Acid CaCO ₃		Alkalinity		Ferrous Iron		Iron as Fe		Sulfate		Flow GPM
		PPM	#/Day	PPM	#/Day	PPM	#/Day	PPM	#/Day	PPM	#/Day	
3-30-73	3.2	140	5,340	-	-	.6	22.88	1.1	41.95	300	11,442	3,173
11-7-73	4.4	24	15,284.8	2	1273.74	-	-	3.96	2522	524	333,719	52,984
11-20-73	4.9	120	26,834.41	2	447.24	-	-	12.52	2799.72	111	24,821.83	18,604
2-4-74	3.5	108	20,997	-	-	2.24	435.5	11.73	2280.6	200	38,884.7	16,175
2-21-74	3.4	130	15,086	-	-	5.6	649.9	14.74	1710.6	275	31,914	9,655
3-19-74*	4.3	42	22,468.4	-	-	-	-	4.89	2615.96	175	93,618	44,506
Averages	4.0	94	17,668	.67	286.83	1.41	184.71	8.16	1995.1	264.17	89,067	24,183

* No field flow reading was taken because of high water. Therefore, flows at GC5 & GC7 in March were averaged and value was used for GC6's March flow.

MAIN STREAM MONITORING STATIONS

Monitoring Station GC7

This station is located on Georges Creek along L. 26081. The sub-watersheds which contribute to the analysis of this station are 10L, and 13R, both un-named, 93% of the flow of 9L, un-named, and 99% of the flow of 11L, Tomcat Hollow, along with those contributing to Monitoring Station GC6. The monthly average water quality data for this monitoring station can be found in Table 11. The following are averages of the pollution load and flow of Georges Creek at this station. The percentage of each pollution value compared to the corresponding pollution value at Monitoring Station GC8 on Georges Creek near New Geneva is also given. The location of this station can be found on Drawing 7316-7.

	<u>Averages</u>		<u>Percent of</u> <u>Monitoring Station GC8</u>
pH 3.9			
Net Hot Acidity	135,002	PPD	561.54%
Ferrous Iron	119	PPD	37,225.00%
Total Iron	3,568	PPD	128.81%
Sulfate	77,190	PPD	112.66%
Flow	59,996,160	GPD	101.00%

TABLE 11
 MONTHLY AVERAGE WATER QUALITY DATA
 FOR MONITORING STATION GC7
 GEORGES CREEK WATERSHED

Date of Sample	pH	Hot Acid CaCO ₃		Alkalinity		Ferrous Iron		Iron as Fe		Sulfate		Flow GPM
		PPM	#/Day	PPM	#/Day	PPM	#/Day	PPM	#/Day	PPM	#/Day	
9-17-73	3.7	86	3,166	-	-	.8	29.45	1.4	51.54	230	8,468	3,063
11-7-73	4.5	40	30,695	2	1534.76	-	-	3.59	2754.90	151	115,874.5	63,842
11-20-73	4.6	800	794,330	2	1985.82	-	-	3.04	3018.45	110	109,220	82,605
12-18-73	4.1	50	33,983.5	-	-	-	-	7.13	4846.05	145	98,552	56,545
2-4-74	3.5	100	31,020	-	-	-	-	11.73	3638.6	150	46,530	25,807
2-19-74	3.4	112	26,340	-	-	1.12	263	25.73	6051	225	52,916	19,566
3-25-74	3.6	60	29,004	-	-	1.12	541.42	9.55	4616.6	225	108,767	40,217
Averages	3.9	178.29	135,505	.57	502.94	.43	119.12	8.88	3568.2	176.57	77,190	41,664

MAIN STREAM MONITORING STATIONS

Monitoring Station GC8

This monitoring station is located on Georges Creek near the intersection of L.R. 26081 and T 429. The sub-watersheds which contribute to the analysis of this station are 12L, 14R, and 15R, all un-named, and 1% of the flow of 11L, Tomcat Hollow, along with those contributing to Monitoring Station GC7. The monthly average water quality data for this monitoring station can be found in Table 12. The following are averages of the pollution load and flow of Georges Creek at this station. The location of this station can be found on Drawing 7316-7.

Averages

pH	4.0		
Net Hot Acidity	24,041	PPD	
Ferrous Iron	0	PPD	
Total Iron	2,770	PPD	
Sulfate	68,514	PPD	
Flow	59,400,000	GPD	

TABLE 12
MONTHLY AVERAGE WATER QUALITY DATA
FOR MONITORING STATION GC8
GEORGES CREEK WATERSHED

Date of Sample	pH	Hot Acid CaCO ₃		Alkalinity		Ferrous Iron		Iron as Fe		Sulfate		Flow GPM
		PPM	#/Day	PPM	#/Day	PPM	#/Day	PPM	#/Day	PPM	#/Day	
9-19-73	3.9	38	853.23	-	-	.1	2.24	.1	2.24	180	4,042	1,868
11-7-73	4.6	46	46578	2	2025.13	-	-	4.15	4202.14	176	178,211	84,240
11-20-73	4.3	100	26361.06	-	-	-	-	2.86	753.93	110	28,997.17	21,931
12-18-73	*	*	*	*	*	-	-	11.84	813.66	*	*	67,692
2-8-74	3.4	98	45133	-	-	-	-	15.15	6977	200	92,109	38,315
2-19-74	3.4	130	16561	-	-	-	-	17.78	2265	150	19,109	10,599
3-22-74	4.4	14	10788	-	-	-	-	5.68	4377	115	88,615	64,107
Averages	4.0	71	24,379	.33	337.52	.01	.32	8.22	2770.1	155.17	68,514	41,250

* Bottle broken in transit