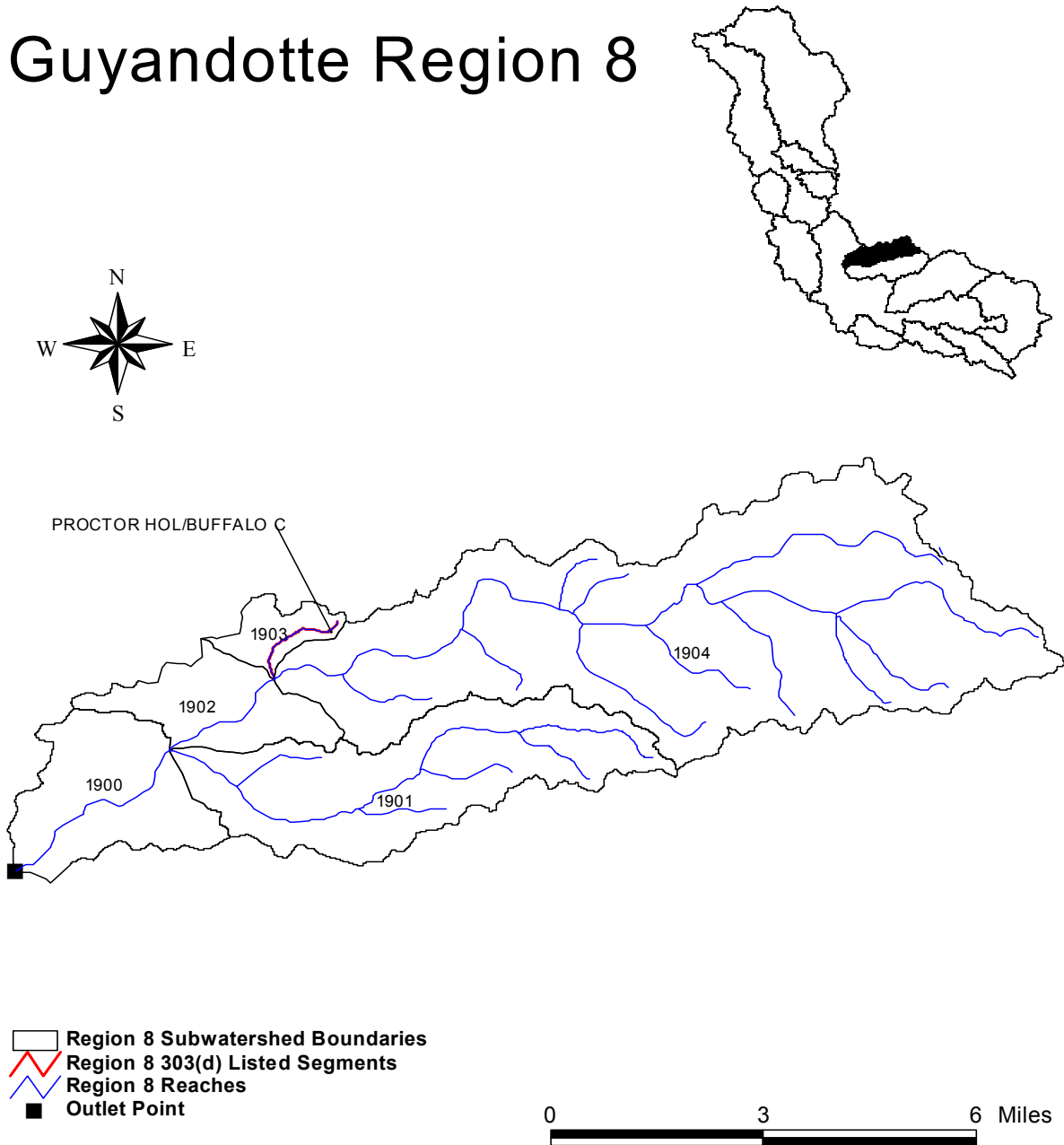


Appendix A-8

Region 8

Guyandotte Region 8



Data Sources:
USEPA Basins, WVDEP
Map Projection: Albers Equal Area GRS 80

Figure 1. Region 8 - Guyandotte Watershed

Metals, pH and Fecal Coliform TMDLs for the Guyandotte Watershed

Table 1. Impaired waterbodies in Region 8

Stream Name	Stream Code	Pollutant	Contributing SWS	Contributing Regions	Affected Use
Proctor Hollow of Buffalo Creek	OG-75-C.5	Metals, pH	1903		Aquatic Life, Human Health

T = Aquatic Life Trout Waters

W = Warm Water Fishery

Table 2. Locations of abandoned mines (seep, deep mine, and/or leachate)

SWS
1900
1901
1902
1903
1904

Metals, pH and Fecal Coliform TMDLs for the Guyandotte Watershed

Table 3a. Water quality data for dissolved aluminum

SWS	WQ Station	Avg (ug/L)	Min (ug/L)	Max (ug/L)	Count	Start Date	End Date
1901	OG-75-Am3.1	100.00	100	100	1	08/23/00	08/23/00
1902	42	171.10	75	600	10	09/20/02	07/03/03
1903	OG-75-C.5m	100.00	100	100	1	08/23/00	08/23/00
1904	OG-075-0003	2260.00	2260	2260	1	08/30/00	08/30/00
1904	OG-075-0007	950.00	950	950	1	08/28/00	08/28/00
1904	OG-75-Dm	100.00	100	100	1	08/28/00	08/28/00

Table 3b. Water quality data for total aluminum

SWS	WQ Station	Avg (ug/L)	Min (ug/L)	Max (ug/L)	Count	Start Date	End Date
1901	OG-75-Am3.1	100.00	100	100	1	08/23/00	08/23/00
1902	42	398.20	80	1200	10	09/20/02	07/03/03
1903	OG-075-0005	2900.00	2800	3000	2	08/23/00	08/24/00
1904	OG-075-0003	9960.00	9960	9960	1	08/30/00	08/30/00
1904	OG-075-0007	6680.00	6680	6680	1	08/28/00	08/28/00
1904	OG-75-Dm	100.00	100	100	1	08/28/00	08/28/00

Table 3c. Water quality data for dissolved iron

SWS	WQ Station	Avg (ug/L)	Min (ug/L)	Max (ug/L)	Count	Start Date	End Date
1901	OG-75-Am3.1	20.00	20	20	1	08/23/00	08/23/00
1902	42	216.67	120	280	3	09/20/02	07/03/03
1903	OG-75-C.5m	20.00	20	20	1	08/23/00	08/23/00
1904	OG-75-Dm	30.00	30	30	1	08/28/00	08/28/00
1904	OG-75-Lm	30.00	30	30	1	08/28/00	08/28/00
1904	OG-75m18	30.00	30	30	1	08/30/00	08/30/00

Table 3d. Water quality data for total iron

SWS	WQ Station	Avg (ug/L)	Min (ug/L)	Max (ug/L)	Count	Start Date	End Date
1901	OG-075-0004	100.00	100	100	1	08/24/00	08/24/00
1901	OG-75-Am3.1	100.00	100	100	1	08/23/00	08/23/00
1902	42	378.00	130	1560	10	09/20/02	07/03/03
1903	OG-075-0005	6900.00	6600	7200	2	08/23/00	08/24/00
1904	OG-075-0003	120.00	120	120	1	08/30/00	08/30/00
1904	OG-075-0006	100.00	100	100	1	08/28/00	08/28/00
1904	OG-075-0007	200.00	200	200	1	08/28/00	08/28/00
1904	OG-75-Dm	100.00	100	100	1	08/28/00	08/28/00

Metals, pH and Fecal Coliform TMDLs for the Guyandotte Watershed

Table 3e. Water quality data for dissolved manganese

SWS	WQ Station	Avg (ug/L)	Min (ug/L)	Max (ug/L)	Count	Start Date	End Date
1902	42	119.00	40	230.0	10	09/20/02	07/03/03

Table 3f. Water quality data for total manganese

SWS	WQ Station	Avg (ug/L)	Min (ug/L)	Max (ug/L)	Count	Start Date	End Date
1901	OG-75-Am3.1	20.0	20.00	20.0	1.0	8/23/2000	8/23/2000
1902	42	145.0	100.00	240.0	10.0	9/20/2002	7/3/2003
1903	OG-075-0005	1350.0	1300.00	1400.0	2.0	8/23/2000	8/24/2000
1904	OG-075-0003	1050.0	1050.00	1050.0	1.0	8/30/2000	8/30/2000
1904	OG-075-0006	280.0	280.00	280.0	1.0	8/28/2000	8/28/2000
1904	OG-075-0007	1610.0	1610.00	1610.0	1.0	8/28/2000	8/28/2000

Table 3g. Water quality data for total selenium

SWS	WQ Station	Avg (ug/L)	Min (ug/L)	Max (ug/L)	Count	Start Date	End Date
No data available							

Table 3h. Water quality data for pH

SWS	WQ Station	Avg (ug/L)	Min (ug/L)	Max (ug/L)	Count	Start Date	End Date
1900	OG-075-0001	8.1	8.1	8.1	1.0	8/24/2000	8/24/2000
1900	OG-75m0.2	7.4	7.4	7.4	1.0	8/23/2000	8/23/2000
1901	OG-075-0004	8.1	8.1	8.1	1.0	8/24/2000	8/24/2000
1901	OG-75-Am3.1	7.4	7.4	7.4	1.0	8/23/2000	8/23/2000
1902	42	7.8	7.1	8.4	10.0	9/20/2002	7/3/2003
1903	OG-075-0005	7.5	7.5	7.5	1.0	8/24/2000	8/24/2000
1903	OG-75-C.5m	7.4	7.4	7.4	1.0	8/23/2000	8/23/2000
1904	OG-075-0002	7.8	7.8	7.8	1.0	8/28/2000	8/28/2000
1904	OG-075-0003	4.8	3.3	6.2	3.0	8/30/2000	8/30/2000
1904	OG-075-0006	7.6	7.6	7.6	1.0	8/28/2000	8/28/2000
1904	OG-075-0007	5.0	5.0	5.0	1.0	8/28/2000	8/28/2000
1904	OG-75-Dm	7.4	7.4	7.4	1.0	8/28/2000	8/28/2000
1904	OG-75-Lm	7.3	7.3	7.3	1.0	8/28/2000	8/28/2000
1904	OG-75m18	7.4	7.4	7.4	1.0	8/30/2000	8/30/2000
1904	OG-75m9.9	7.4	7.4	7.4	1.0	8/28/2000	8/28/2000

Table 3i. Water quality data for fecal coliforms

SWS	WQ Station	Avg (#/100 mL)	Min (#/100 mL)	Max (#/100 mL)	Count	Start Date	End Date
1900	OG-075-0001	270.0	270.0	270.0	1.0	8/24/2000	8/24/2000
1901	OG-075-0004	20.0	20.0	20.0	1.0	8/24/2000	8/24/2000
1903	OG-075-0005	40.0	20.0	60.0	2.0	8/23/2000	8/24/2000
1904	OG-075-0002	232.0	232.0	232.0	1.0	8/28/2000	8/28/2000
1904	OG-075-0006	214.0	214.0	214.0	1.0	8/28/2000	8/28/2000
1900	OG-75m0.2	270.0	270.0	270.0	1.0	8/23/2000	8/23/2000
1901	OG-75-Am3.1	20.0	20.0	20.0	1.0	8/23/2000	8/23/2000
1904	OG-75-Lm	20.0	20.0	20.0	1.0	8/28/2000	8/28/2000

Metals, pH and Fecal Coliform TMDLs for the Guyandotte Watershed

Table 4a. Iron baseline conditions and allocations (WLAs) for permitted mining point sources

SWS	NPDES Permit ID	Baseline (lb/yr)	Allocation (lb/yr)	Allocation (mg/L)	% Reduction
1900	WV1016849	5,981	5,981	3.20	0
1901	WV0053171	8,736	4,805	1.76	45
1901	WV1008340	38	21	1.76	45
1901	WV1010921	10,703	5,887	1.76	45
1902	WV0053163	57	28	1.60	50
1902	WV0096393	3,113	1,557	1.60	50
1902	WV0099520	14,414	7,207	1.60	50
1902	WV1008331	3,531	1,765	1.60	50
1902	WV1010921	286	143	1.60	50
1902	WV1016849	804	402	1.60	50
1903	WV0099520	2,906	1,511	1.66	48
1903	WV1013319	220	115	1.66	48
1904	WV0053171	13,184	9,229	2.24	30
1904	WV0064572	227	159	2.24	30
1904	WV0093122	102	72	2.24	30
1904	WV0095699	2,843	1,990	2.24	30
1904	WV0096156	1,479	1,035	2.24	30
1904	WV0096385	117	82	2.24	30
1904	WV0096393	167	117	2.24	30
1904	WV1008340	121	85	2.24	30
1904	WV1010921	2,056	1,439	2.24	30
1904	WV1013408	138	96	2.24	30
1904	WV1013530	2,494	1,746	2.24	30
1904	WV1020510	4,513	3,159	2.24	30
1904	WVG015034	64	45	2.24	30

Metals, pH and Fecal Coliform TMDLs for the Guyandotte Watershed

Table 4b. Manganese baseline conditions and allocations (WLAs) for permitted mining point source

SWS	NPDES Permit ID	Baseline (lb/yr)	Allocation (lb/yr)	Allocation (mg/L)	% Reduction
1900	WV1016849	2,394	2,394	2.00	0
1901	WV0053171	3,870	3,870	2.00	0
1901	WV1008340	17	17	2.00	0
1901	WV1010921	4,741	4,741	2.00	0
1902	WV0053163	24	24	2.00	0
1902	WV0096393	1,323	1,323	2.00	0
1902	WV0099520	6,128	6,128	2.00	0
1902	WV1008331	1,501	1,501	2.00	0
1902	WV1010921	122	122	2.00	0
1902	WV1016849	342	342	2.00	0
1903	WV0099520	1,273	1,273	2.00	0
1903	WV1013319	97	97	2.00	0
1904	WV0053171	6,935	6,935	2.00	0
1904	WV0064572	119	119	2.00	0
1904	WV0093122	54	54	2.00	0
1904	WV0095699	1,496	1,496	2.00	0
1904	WV0096156	778	778	2.00	0
1904	WV0096385	62	62	2.00	0
1904	WV0096393	88	88	2.00	0
1904	WV1008340	64	64	2.00	0
1904	WV1010921	1,081	1,081	2.00	0
1904	WV1013408	72	72	2.00	0
1904	WV1013530	1,312	1,312	2.00	0
1904	WV1020510	2,374	2,374	2.00	0
1904	WVG015034	34	34	2.00	0

Metals, pH and Fecal Coliform TMDLs for the Guyandotte Watershed

Table 4c. Aluminum baseline conditions and allocations (WLAs) for permitted mining point sources

SWS	NPDES Permit ID	Baseline (lb/yr)	Allocation (lb/yr)	Allocation (mg/L)	% Reduction
1900	WV1016849	6111	6111	3.27	0
1901	WV0053171	8927	6249	2.29	30
1901	WV1008340	39	27	2.29	30
1901	WV1010921	10936	7655	2.29	30
1902	WV0053163	58	41	2.29	30
1902	WV0096393	3181	2227	2.29	30
1902	WV0099520	14728	10310	2.29	30
1902	WV1008331	3608	2525	2.29	30
1902	WV1010921	292	205	2.29	30
1902	WV1016849	822	575	2.29	30
1903	WV0099520	2970	2227	2.45	25
1903	WV1013319	225	169	2.45	25
1904	WV0053171	13472	10777	2.62	20
1904	WV0064572	232	185	2.62	20
1904	WV0093122	104	84	2.62	20
1904	WV0095699	2905	2324	2.62	20
1904	WV0096156	1512	1209	2.62	20
1904	WV0096385	120	96	2.62	20
1904	WV0096393	171	136	2.62	20
1904	WV1008340	124	99	2.62	20
1904	WV1010921	2101	1681	2.62	20
1904	WV1013408	141	113	2.62	20
1904	WV1013530	2548	2039	2.62	20
1904	WV1020510	4612	3689	2.62	20
1904	WVG015034	65	52	2.62	20

Metals, pH and Fecal Coliform TMDLs for the Guyandotte Watershed

Table 5a. Iron baseline conditions and allocations (LAs) for nonpoint sources

* Other Nonpoint Sources include: Forest, Wetland, Agriculture, Pasture, and Urban

SWS	AML		Revoked Mines		Roads		Oil and Gas Wells		Harvested Forest		Barren Land		Other Non-Point Sources		Requires Reduction
	Baseline Load (lb/yr)	Allocated Load (lb/yr)	Baseline Load (lb/yr)	Allocated Load (lb/yr)	Baseline Load (lb/yr)	Allocated Load (lb/yr)	Baseline Load (lb/yr)	Allocated Load (lb/yr)	Baseline Load (lb/yr)	Allocated Load (lb/yr)	Baseline Load (lb/yr)	Allocated Load (lb/yr)	Baseline Load (lb/yr)	Allocated Load (lb/yr)	
1900	898	90	0	0	159	159	2	2	63	63	0	0	596	596	x
1901	1,853	111	0	0	121	121	3	3	0	0	58	58	1,084	1,084	x
1902	149	9	217	78	81	81	1	1	0	0	0	0	185	185	x
1903	326	20	482	174	33	33	0	0	0	0	0	0	115	115	x
1904	11,542	693	3,550	1,278	901	901	7	7	41	41	168	168	4,744	4,744	x

Table 5b. Manganese baseline conditions and allocations (LAs) for nonpoint sources

SWS	AML		Revoked Mines		Roads		Oil and Gas Wells		Harvested Forest		Barren Land		Other Non-Point Sources		Requires Reduction
	Baseline Load (lb/yr)	Allocated Load (lb/yr)	Baseline Load (lb/yr)	Allocated Load (lb/yr)	Baseline Load (lb/yr)	Allocated Load (lb/yr)	Baseline Load (lb/yr)	Allocated Load (lb/yr)	Baseline Load (lb/yr)	Allocated Load (lb/yr)	Baseline Load (lb/yr)	Allocated Load (lb/yr)	Baseline Load (lb/yr)	Allocated Load (lb/yr)	
1900	1,255	1,255	0	0	33	33	4	4	139	139	0	0	389	389	
1901	2,500	2,500	0	0	26	26	7	7	0	0	157	157	721	721	
1902	215	215	219	219	15	15	2	2	0	0	0	0	98	98	
1903	1,580	32	1,465	806	18	18	3	3	0	0	0	0	76	76	x
1904	18,760	18,760	4,107	4,107	250	250	24	24	92	92	540	540	2,979	2,979	

Table 5c. Aluminum baseline conditions and allocations (LAs) for nonpoint sources

SWS	AML		Revoked Mines		Roads		Oil and Gas Wells		Harvested Forest		Barren Land		Other Non-Point Sources		Requires Reduction
	Baseline Load (lb/yr)	Allocated Load (lb/yr)	Baseline Load (lb/yr)	Allocated Load (lb/yr)	Baseline Load (lb/yr)	Allocated Load (lb/yr)	Baseline Load (lb/yr)	Allocated Load (lb/yr)	Baseline Load (lb/yr)	Allocated Load (lb/yr)	Baseline Load (lb/yr)	Allocated Load (lb/yr)	Baseline Load (lb/yr)	Allocated Load (lb/yr)	
1900	2,987	209	0	0	161	161	2	2	71	71	0	0	666	666	x
1901	7,254	508	0	0	123	123	3	3	0	0	70	70	1,209	1,209	x
1902	410	29	45	18	82	82	1	1	0	0	0	0	203	203	x
1903	1,874	131	100	75	33	33	0	0	0	0	0	0	128	128	x
1904	28,415	1,989	751	300	915	915	9	9	45	45	199	199	5,230	5,230	x

Metals, pH and Fecal Coliform TMDLs for the Guyandotte Watershed

Table 6. Fecal Coliform baseline and allocations

SWS	Stream	Agriculture		Natural Sources		Failing Septics		Residential	
		Baseline Load (counts)	Allocated Load (count)	Baseline Load (count)	Allocated Load (count)	Baseline Load (count)	Allocated Load (count)	Baseline Load (count)	Allocated Load (count)
1900	Buffalo Creek	1.63E+12	1.14E+12	1.19E+13	1.19E+13	1.30E+14	0.00E+00	2.18E+13	1.52E+13