Table 39
Stream Water Quality
Lower Yellow Creek

Location ID	Name	Beginning Sample Date	Ending Sample Date	Flow	Averge pH	Number of pH Samples	Number of Al Samples	Average Al	Number of Iron Samples	Average Iron	Number of Mn Samples	Average Mn	Number of Sulfate Samples	Average Sulfate	Number of Acidity Samples	Average Acidity	Total Average
LYC-137	Lucerne No. 2 Mine	11/20/1986	9/17/1998	85.10	3.22	23	1	0.25	23	264.13	23	20.14	23	3047.72	22	2435.44	1153.54
LYC-087	Judy #14 Tributary - below discharge	4/24/1997	4/26/2001	267.50	3.15	17	17	32.86	17	39.15	17	4.36	17	648.38	17	300.02	204.95
LYC-093	Yellow Creek	2/28/2001	4/30/2001	215.00	4.85	2	2	17.85	2	63.90	2	4.16	2	682.10	2	185.00	190.60
LYC-050	Tide Tributary	6/1/2002	6/1/2002	6.00	3.32	1	1	5.88	1	124.00	1	4.62	1	490.00	1	291.00	183.10
LYC-114	Trib., downstream	5/14/1993	8/27/2002	326.10	3.29	30	7	8.38	30	15.76	30	4.19	30	623.75	30	223.00	175.02
LYC-075	Judy #14 Tributary	4/24/1997	4/26/2001	453.33	3.24	18	18	20.22	18	25.78	18	4.27	18	583.51	18	237.00	174.16
LYC-045	Yellow Creek	6/1/2002	6/1/2002	250.00	5.32	1	1	1.88	1	0.49	1	1.38	1	842.00	1	12.80	171.71
LYC-098	Near the intersection of Tide Road and Rt. 954	5/22/1992	8/19/1993	120.73	3.47	9			9	8.05	9	5.60	9	430.70	9	109.30	138.41
LYC-110	Trib. To Yellow Creek	7/13/1994	10/31/1994	2.98	3.34	8	8	3.68	8	1.27	8	6.94	8	579.43	8	73.56	132.97
LYC-096	Tide Tributary above Tide	5/14/1993	4/4/2002	23.63	3.96	22	6	4.26	22	18.11	22	2.77	22	404.45	20	147.19	115.36
LYC-081	Tide Tributary - lower	4/24/1997	4/26/2001	575.50	3.44	19	19	10.23	19	9.18	19	3.06	19	381.78	19	119.84	104.82
LYC-091	Tributary above	4/24/1997	4/26/2001	0.00	4.74	14	14	6.06	14	0.24	14	4.02	14	414.94	14	43.14	93.68
LYC-078	Yellow Creek	6/1/2002	6/1/2002	275.00	3.36	1	1	6.12	1	2.28	1	5.26	1	340.00	1	76.00	85.93
LYC-167	Judy #14 Tributary - above discharge	10/12/1999	4/26/2000	33.33	4.08	4	4	6.68	4	14.95	4	4.63	4	299.25	4	85.00	82.10
LYC-099	West side of valley near Rt. 954	4/20/1994	4/4/2002	137.15	3.89	20	7	2.95	20	14.99	20	1.82	20	285.20	20	88.77	78.75
LYC-168	Tributary at gas well	7/31/2000	4/26/2001		4.43	3	3	6.47	3	0.15	3	4.00	3	286.40	3	44.67	68.34
LYC-169	Tributary above red stain	10/12/1999	4/26/2000	21.67	4.55	4	4	3.88	4	0.23	4	2.33	4	274.25	4	27.00	61.54
LYC-107	Trib. To Yellow Creek	4/20/1994	1/25/1995	17.71	6.69	6	1	0.10	6	0.21	6	0.11	6	290.35	6	6.68	59.49
LYC-105	West side of valley near Rt. 954 above gasline	4/20/1994	9/2/1994	58.20	5.63	6			6	0.46	6	0.38	6	219.55	6	11.98	58.09
LYC-084	Yellow Creek before YC-24	4/24/1997	6/1/2002	35869.64	4.60	18	18	6.99	18	25.11	18	0.65	18	176.82	18	79.13	57.74
LYC-109	Trib. To Yellow Creek	7/13/1994	2/13/1995	34.50	3.94	4	4	2.99	4	2.44	4	0.54	4	207.73	4	46.65	52.07
LYC-108	Trib. To Yellow Creek	4/20/1994	6/1/2002	69.33	5.41	7	1	0.98	7	2.34	7	0.51	7	218.90	7	16.99	47.94
LYC-171	Yellow Creek #1	4/19/2002	10/24/2003	63.37	4.76	7	7	3.03	7	19.49	7	5.09	7	146.76	2	60.40	46.95
LYC-092	Tide Tributary at Budners	4/24/1997	4/26/2001	0.00	7.24	7	7	0.39	7	0.39	7	0.28	7	199.04	7	2.00	40.42
LYC-085	Yellow Creek at the Floodway Park	4/24/1997	5/13/2004	39660.17	4.71	35	35	4.10	35	12.80	35	0.89	35	121.50	30	48.91	37.64
LYC-077	YC below Judy #14 Tributary	4/24/1997	6/1/2002	29937.38	4.97	27	26	4.46	27	4.68	27	0.96	27	135.86	27	35.08	36.21
LYC-157	Yellow Creek	4/26/2001	9/27/2001	2500.00	5.04	6	6	4.51	6	3.38	6	0.51	6	133.88	6	33.06	35.07
LYC-119	Ferrier Run	3/29/1995	10/19/2000	304.57	6.52	12	1	0.20	12	0.32	12	0.41	12	155.88	10	4.20	32.20
LYC-082	Yellow Creek below Tide Tributary	4/24/1997	6/1/2002	32330.08	5.32	19	19	2.09	19	1.78	19	0.53	19	121.27	19	17.32	28.60
LYC-155	Yellow Creek	4/26/2001	9/27/2001	2500.00	5.75	6	6	1.58	6	1.96	6	0.45	6	105.28	4	11.20	24.10
LYC-112	Trib., upstream	5/14/1993	4/4/2002	23.52	7.20	14	5	0.22	14	0.28	14	0.19	14	105.81	7	3.93	22.08
LYC-121	Yellow Creek, downstream	1/16/1996	6/18/2002		6.13	4	4	1.16	4	1.92	4	0.52	4	68.85	3	25.73	19.64
LYC-115	Trib., upstream	5/14/1993	4/4/2002	7.36	6.32	14	5	0.86	14	0.31	14	0.33	14	51.96	7	6.97	12.08
LYC-069	YC Rt. 954 Bridge	2/22/1996	5/13/2004	42807.72	6.66	63	63	0.27	57	0.37	57	0.13	63	41.81	57	3.16	9.15
LYC-124	Trib. Downstream	1/16/1996	6/18/2002		6.84	9	9	0.33	9	0.52	9	0.13	8	32.24			8.31
LYC-123	Trib. upstream	1/16/1996	6/18/2002		6.82	9	9	0.35	9	0.48	9	0.13	8	31.29			8.06

Table 40
Discharge Water Quality Rankings
Lower Yellow Creek

Location ID	Name	Beginning Sample Date	Ending Sample Date	Flow	Average pH	Number of pH Samples	pH Rank	Number of Al Samples	Average Al	Al Rank Factor	Al Rank	Number of Iron Samples	Average Iron	Iron Rank Factor	Iron Rank	Number of Mn Samples	Average Mn	Mn Rank Factor	Mn Rank	Number of Sulfate Samples	Average Sulfate	Sulfate Rank Factor	Sulfate Rank	Number of Acidity Samples	Average Acidity	Acidity Rank Factor	Acidity Rank	FINAL AVERAGE RANK
LYC-095	Discharge below ACV refuse pit	4/24/1997	6/1/2002	21.54	2.32	18	1	18	585.78	585.78	1	18	709.00	709.00	2	18	10.14	10.14	3	18	18237.22	18237.22	1	18	18419.33	18419.33	1	1.50
LYC-043	Discharge Sample	6/1/2002	6/1/2002	2.00	2.54	1	3	1	532.00	266.00	2	1	1811.00	905.50	1	1	25.40	12.70	2	1	8275.00	4137.5	2	1	1000.00	500.00	6	2.67
LYC-037	Discharge Sample	6/1/2002	6/1/2002	10.00	2.44	1	2	1	243.00	121.50	3	1	529.00	264.50	3	1	11.40	5.70	13	1	4662.00	2331	3	1	1600.00	800.00	3	4.50
LYC-080	Tide Refuse Pile Seep - grassy area	10/2/1997	4/26/2001	24.71	3.12	14	14	14	119.61	119.61	4	14	81.17	81.17	7	14	7.45	7.45	10	14	1421.21	1421.21	4	14	958.00	958.00	2	6.83
LYC-079	Tide Refuse Pile Seep	4/24/1997	4/26/2001	7.56	2.68	17	4	17	40.83	40.83	8	17	57.01	57.01	12	17	6.10	6.10	12	16	1026.04	1026.04	6	17	612.59	612.59	5	7.83
LYC-088	Judy #14 Discharge	4/24/1997	4/26/2001	69.93	2.86	17	8	17	63.92	63.92	5	17	71.69	71.69	9	17	4.30	4.30	18	17	1060.75	1060.75	5	17	723.29	723.29	4	8.17
LYC-026	Mine Discharge	2/24/1997	6/13/2002	24.04	2.78	48	6	46	39.80	39.80	9	48	9.60	9.60	23	48	8.83	8.83	5	48	800.36	800.36	9	48	392.58	392.58	7	9.83
LYC-030	Mine Discharge	1/21/1999	8/8/2002	7.48	2.92	47	12	47	42.10	42.10	7	47	5.75	5.75	27	47	8.53	8.53	6	47	872.27	872.27	7	47	363.76	363.76	9	11.33
LYC-036	Discharge Sample	6/1/2002	6/1/2002	40.00	2.90	1	10	1	96.20	48.10	6	1	87.80	43.90	15	1	8.90	4.45	16	1	1335.00	667.5	14	1	752.00	376.00	8	11.50
LYC-029	Mine Discharge	1/21/1999	8/8/2002	6.56	3.09	56	13	56	38.65	38.65	10	56	3.16	3.16	29	56	7.73	7.73	9	56	863.40	863.40	8	56	320.62	320.62	10	13.17
LYC-048	Discharge Sample	6/1/2002	6/1/2002	5.00	2.69	1	5	1	33.90	16.95	16	1	112.00	56.00	13	1	6.70	3.35	22	1	1045.00	522.5	20	1	599.00	299.50	11	14.50
LYC-028	Mine Discharge	1/21/1999	8/8/2002	7.16	3.19	55	17	55	35.60	35.60	11	55	2.03	2.03	30	55	8.13	8.13	8	55	791.56	791.56	10	55	279.15	279.15	13	14.83
LYC-044	Discharge Sample	6/1/2002	6/1/2002	40.00	3.17	1	16	1	41.20	20.60	13	1	152.00	76.00	8	1	6.10	3.05	23	1	1092.00	546	19	1	589.00	294.50	12	15.17
LYC-101	West side of valley near Rt. 954	5/14/1993	6/8/1993	2.75	3.36	2	22					2	103.91	103.91	5	2	4.59	4.59	15	2	462.25	462.25	21	2	242.00	242.00	17	16.00
LYC-076	Tide Borehole	4/24/1997	4/26/2001	98.67	3.36	18	21	18	18.48	18.48	14	18	48.42	48.42	14	18	3.93	3.93	19	18	722.67	722.67	13	18	248.78	248.78	16	16.17
LYC-051	Discharge Sample	6/1/2002	6/1/2002	5.00	5.13	1	35	1	0.14	0.07	34	1	273.00	136.50	4	1	30.10	15.05	1	1	1275.00	637.5	15	1	525.00	262.50	14	17.17
LYC-025	Soil Discharge	3/29/1996	12/19/2000	5.58	3.36	37	23	36	33.01	33.01	12	37	1.56	1.56	31	37	7.04	7.04	11	37	756.88	756.88	12	37	252.73	252.73	15	17.33
LYC-086	Lucierne #2 Borehole under Rt. 119	4/24/1997	5/13/2004	466.19	4.56	29	28	29	13.73	13.73	17	29	68.96	68.96	11	29	3.82	3.82	21	29	621.42	621.42	16	29	180.79	180.79	19	18.67
LYC-034	Discharge Sample	6/1/2002	6/1/2002	275.00	2.79	1	7	1	34.80	17.40	15	1	34.30	17.15	19	1	5.11	2.56	27	1	738.00	369	26	1	328.00	164.00	20	19.00
LYC-103	West side of valley near Rt. 954 Seep 2	5/14/1993	6/8/1993	0.50	2.87	2	9					2	96.60	96.60	6	2	2.57	2.57	26	2	223.40	223.40	32	2	146.25	146.25	22	19.00
LYC-019	Mine Discharge	7/13/1994	10/28/2002	2.04	3.32	112	20	106	2.72	2.72	27	112	18.45	18.45	18	112	3.83	3.83	20	112	769.62	769.62	11	110	135.44	135.44	23	19.83
LYC-033	Discharge Sample	6/1/2002	6/1/2002	75.00	3.15	1	15	1	22.30	11.15	18	1	68.80	34.40	16	1	4.54	2.27	28	1	708.00	354	28	1	269.00	134.50	24	21.50
LYC-097	Deep mine discharge southeast of Tide	5/22/1992	10/22/1993	212.96	3.42	11	24					11	8.85	8.85	24	11	5.25	5.25	14	11	408.90	408.90	22	11	106.55	106.55	25	21.80
LYC-021	Deep Mine Discharge	5/22/1992	8/27/2002	21.72	4.96	29	31	8	7.99	7.99	19	29	28.86	28.86	17	29	1.05	1.05	33	29	579.01	579.01	18	18	214.49	214.49	18	22.67
LYC-104	West side of valley near Rt. 954 Seep 3	5/14/1993	6/8/1993	0.88	3.29	2	19					2	7.88	7.88	25	2	4.36	4.36	17	2	242.50	242.50	30	2	99.05	99.05	27	23.60
LYC-094	Weir at wetlands near Rt. 119 bridge	4/24/1997	5/13/2004	221.92	5.61	25	37	25	5.18	5.18	23	25	68.97	68.97	10	25	2.21	2.21	29	25	600.30	600.30	17	25	102.90	102.90	26	23.67
LYC-071	Discharge	4/26/2001	4/26/2001	5.00	2.90	1	11	1	8.98	4.49	24	1	26.40	13.20	21	1	3.26	1.63	31	1	301.00	150.5	35	1	299.00	149.50	21	23.83
LYC-090	OHM stripmine discharge	4/24/1997	4/26/2001	32.36	3.69	17	25	17	6.71	6.71	20	17	5.92	5.92	26	17	2.92	2.92	24	17	398.17	398.17	24	17	84.06	84.06	28	24.50
LYC-024	Discharge from surface mine	2/22/1996	1/15/2002	5.08	3.72	35	26	30	5.98	5.98	22	35	0.65	0.65	36	35	8.38	8.38	7	35	282.24	282.24	29	35	67.90	67.90	29	24.83
LYC-039	Discharge Sample	6/1/2002	6/1/2002	10.00	3.22	1	18	1	12.40	6.20	21	1	2.52	1.26	33	1	3.71	1.86	30	1	398.00	199	34	1	114.00	57.00	30	27.67
LYC-083	Lucierne #3 Mine	4/24/1997	6/1/2002	82.50	5.13	13	34	13	4.22	4.22	25	13	13.93	13.93	20	13	0.94	0.94	35	13	405.88	405.88	23	13	37.94	37.94	32	28.17
LYC-102	West side of valley near Rt. 954 Seep 1	5/14/1993	6/8/1993	1.50	5.90	2	38					2	10.81	10.81	22	2	9.90	9.90	4	2	57.65	57.65	39	2	6.85	6.85	38	28.20
LYC-020	Mine Discharge	7/27/1994	9/13/2002	11.04	5.21	132	36	118	1.19	1.19	31	132	3.93	3.93	28	132	2.67	2.67	25	132	383.40	383.40	25	88	44.31	44.31	31	29.33
LYC-042	Discharge Sample	6/1/2002	6/1/2002	100.00	3.83	1	27	1	3.72	1.86	30	1	0.38	0.19	37	1	2.02	1.01	34	1	422.00	211	33	1	44.00	22.00	36	32.83
LYC-022	Mine Discharge	2/14/1997	5/8/2002	22.24	6.56	37	39	35	2.59	2.59	28	37	0.92	0.92	34	37	0.80	0.80	37	37	368.18	368.18	27	33	35.84	35.84	33	33.00
LYC-023	Mine Discharge	1/21/1999	8/8/2002	5.02	4.95	16	30	16	2.80	2.80	26	16	1.28	1.28	32	16	0.56	0.56	38	16	67.57	67.57	37	16	24.50	24.50	35	33.00
LYC-027	Mine Discharge	2/14/1997	8/8/2002	6.69	5.04	39	33	38	2.14	2.14	29	39	0.87	0.87	35	39	0.86	0.86	36	39	233.16	233.16	31	39	25.64	25.64	34	33.00
LYC-047	Discharge Sample	6/1/2002	6/1/2002	3.00	5.01	1	32	1	1.62	0.81	32	1	0.13	0.07	39	1	3.06	1.53	32	1	182.00	91	36	1	20.00	10.00	37	34.67
LYC-070	Discharge	4/26/2001	4/26/2001	50.00	4.80	1	29	1	0.25	0.13	33	1	0.30	0.15	38	1	0.16	0.08	39	1	134.70	67.35	38	1	5.40	2.70	39	36.00

Table 41
Discharge Loading Ranking
Lower Yellow Creek

Location ID	Name	Beginning Sample Date	Ending Sample Date	Average Flow	Number of Al Loading Samples	Average Al Loading	AL Loading Rank Factor	AL Loading Rank	Number of Iron Loading Samples	Average Iron Loading	Iron Loading Rank Factor	Iron Loading Rank	Number of Mn Loading Samples	Average Mn Loading	Mn Loading Rank Factor	Mn Loading Rank	Number of Sulfate Loading Samples	Average Sulfate Loading	Sulfate Loading Rank Factor	Sulfate Loading Rank	Number of Acidity Loading Samples	Average Acidity Loading	Acidity Loading Rank Factor	Acidity Loading Rank	FINAL LOADING AVG RANK	FINAL WATER QUALITY AVG RANK	FINAL AVG RANK	FINAL RANK
LYC-095	Discharge below ACV refuse pit	4/24/1997	6/1/2002	21.54	17	194.64	194.64	1	17	389.35	389.35	1	17	2.90	2.90	6	17	5137.00	5137.00	1	17	4387.96	4387.96	1	2.00	1.50	2.75	1
LYC-088	Judy #14 Discharge	4/24/1997	4/26/2001	69.93	14	29.29	29.29	5	14	36.98	36.98	6	14	2.44	2.44	8	14	628.14	628.14	8	14	360.44	360.44	4	6.20	8.17	10.28	2
LYC-086	Lucierne #2 Borehole under Rt. 119	4/24/1997	5/13/2004	466.19	28	88.95	88.95	2	28	322.31	322.31	2	28	22.45	22.45	1	28	3248.91	3248.91	2	28	1120.73	1120.73	2	1.80	18.67	11.13	3
LYC-080	Tide Refuse Pile Seep - grassy area	10/2/1997	4/26/2001	24.71	14	35.53	35.53	4	14	17.64	17.64	12	14	1.93	1.93	12	14	394.47	394.47	9	14	266.43	266.43	7	8.80	6.83	12.22	4
LYC-034	Discharge Sample	6/1/2002	6/1/2002	275.00	1	114.84	57.42	3	1	113.19	56.60	4	1	16.86	8.43	4	1	2435.40	1217.70	4	1	1082.40	541.20	3	3.60	19.00	13.10	5
LYC-076	Tide Borehole	4/24/1997	4/26/2001	98.67	15	21.26	21.26	8	15	51.12	51.12	5	15	4.30	4.30	5	15	808.56	808.56	6	15	279.39	279.39	6	6.00	16.17	14.08	6
LYC-037	Discharge Sample	6/1/2002	6/1/2002	10.00	1	29.16	14.58	9	1	63.48	31.74	8	1	1.37	0.68	18	1	559.44	279.72	12	1	192.00	96.00	14	12.20	4.50	14.45	7
LYC-036	Discharge Sample	6/1/2002	6/1/2002	40.00	1	46.18	23.09	7	1	42.14	21.07	11	1	4.27	2.14	9	1	640.80	320.40	10	1	360.96	180.48	8	9.00	11.50	14.75	8
LYC-094	Weir at wetlands near Rt. 119 bridge	4/24/1997	5/13/2004	221.92	12	27.12	27.12	6	12	172.15	172.15	3	12	9.21	9.21	3	12	1651.89	1651.89	3	12	329.70	329.70	5	4.00	23.67	15.83	9
LYC-026	Mine Discharge	2/24/1997	6/13/2002	24.04	46	11.45	11.45	10	48	2.85	2.85	20	48	2.65	2.65	7	48	234.76	234.76	15	48	117.40	117.40	13	13.00	9.83	17.92	10
LYC-097	Deep mine discharge southeast of Tide	5/22/1992	10/22/1993	212.96					11	14.87	14.87	13	11	10.77	10.77	2	11	820.54	820.54	5	11	176.39	176.39	9	7.25	21.80	18.15	11
LYC-044	Discharge Sample	6/1/2002	6/1/2002	40.00	1	19.78	9.89	12	1	72.96	36.48	7	1	2.93	1.46	13	1	524.16	262.08	13	1	282.72	141.36	11	11.20	15.17	18.78	12
LYC-043	Discharge Sample	6/1/2002	6/1/2002	2.00	1	12.77	6.38	14	1	43.46	21.73	10	1	0.61	0.30	25	1	198.60	99.30	19	1	24.00	12.00	27	19.00	2.67	20.33	13
LYC-033	Discharge Sample	6/1/2002	6/1/2002	75.00	1	20.07	10.04	11	1	61.92	30.96	9	1	4.09	2.04	10	1	637.20	318.60	11	1	242.10	121.05	12	10.60	21.50	21.35	14
LYC-079	Tide Refuse Pile Seep	4/24/1997	4/26/2001	7.56	16	2.91	2.91	16	16	4.17	4.17	17	16	0.52	0.52	21	15	86.22	86.22	20	16	47.86	47.86	15	17.80	7.83	21.72	15
LYC-030	Mine Discharge	1/21/1999	8/8/2002	7.48	47	3.61	3.61	15	47	0.58	0.58	25	47	0.74	0.74	17	47	79.48	79.48	21	47	33.90	33.90	16	18.80	11.33	24.47	16
LYC-083	Lucierne #3 Mine	4/24/1997	6/1/2002	82.50	3	9.73	9.73	13	3	14.58	14.58	14	3	2.02	2.02	11	3	758.20	758.20	7	3	149.40	149.40	10	11.00	28.17	25.08	17
LYC-029	Mine Discharge	1/21/1999	8/8/2002	6.56	56	2.67	2.67	18	56	0.24	0.24	29	56	0.56	0.56	20	56	59.30	59.30	23	56	23.56	23.56	19	21.80	13.17	28.38	18
LYC-028	Mine Discharge	1/21/1999	8/8/2002	7.16	55	2.69	2.69	17	55	0.16	0.16	31	55	0.62	0.62	19	55	60.12	60.12	22	55	21.58	21.58	21	22.00	14.83	29.42	19
LYC-021	Deep Mine Discharge	5/22/1992	8/27/2002	21.72	3	1.39	1.39	23	24	5.51	5.51	16	24	0.21	0.21	28	24	152.66	152.66	16	16	31.92	31.92	17	20.00	22.67	31.33	20
LYC-048	Discharge Sample	6/1/2002	6/1/2002	5.00	1	2.03	1.02	24	1	6.72	3.36	18	1	0.40	0.20	29	1	62.70	31.35	28	1	35.94	17.97	22	24.20	14.50	31.45	21
LYC-051	Discharge Sample	6/1/2002	6/1/2002	5.00	1	0.01	0.00	34	1	16.38	8.19	15	1	1.81	0.90	15	1	76.50	38.25	27	1	31.50	15.75	24	23.00	17.17	31.58	22
LYC-090	OHM stripmine discharge	4/24/1997	4/26/2001	32.36	14	1.40	1.40	22	14	0.95	0.95	21	14	0.78	0.78	16	14	101.69	101.69	18	14	16.45	16.45	23	20.00	24.50	32.25	23
LYC-025	Soil Discharge	3/29/1996	12/19/2000	5.58	36	1.87	1.87	20	37	0.08	0.08	34	37	0.41	0.41	24	37	45.53	45.53	24	37	14.45	14.45	25	25.40	17.33	34.07	24
LYC-042	Discharge Sample	6/1/2002	6/1/2002	100.00	1	4.46	2.23	19	1	0.46	0.23	30	1	2.42	1.21	14	1	506.40	253.20	14	1	52.80	26.40	18	19.00	32.83	35.42	25
LYC-101	West side of valley near Rt. 954	5/14/1993	6/8/1993	2.75					2	3.13	3.13	19	2	0.15	0.15	30	2	14.33	14.33	34	2	7.37	7.37	29	28.00	16.00	36.00	26
LYC-022	Mine Discharge	2/14/1997	5/8/2002	22.24	35	1.69	1.69	21	37	0.58	0.58	23	37	0.49	0.49	22	37	110.51	110.51	17	33	23.32	23.32	20	20.60	33.00	37.10	27
LYC-019	Mine Discharge	7/13/1994	10/28/2002	2.04	101	0.07	0.07	31	107	0.45	0.45	26	107	0.10	0.10	32	107	22.92	22.92	30	105	2.95	2.95	33	30.40	19.83	40.32	28
LYC-071	Discharge	4/26/2001	4/26/2001	5.00	1	0.54	0.27	29	1	1.58	0.79	22	1	0.20	0.10	33	1	18.06	9.03	35	1	17.94	8.97	28	29.40	23.83	41.32	29
LYC-027	Mine Discharge	2/14/1997	8/8/2002	6.69	38	0.89	0.89	25	39	0.38	0.38	27	39	0.23	0.23	26	39	43.86	43.86	25	39	12.67	12.67	26	25.80	33.00	42.30	30
LYC-024	Discharge from surface mine	2/22/1996	1/15/2002	5.08	28	0.51	0.51	28	33	0.04	0.04	37	33	0.48	0.48	23	33	19.36	19.36	31	33	4.78	4.78	32	30.20	24.83	42.62	31
LYC-039	Discharge Sample	6/1/2002	6/1/2002	10.00	1	1.49	0.74	26	1	0.30	0.15	32	1	0.45	0.22	27	1	47.76	23.88	29	1	13.68	6.84	30	28.80	27.67	42.63	32
LYC-103	West side of valley near Rt. 954 Seep 2	5/14/1993	6/8/1993	0.50					2	0.58	0.58	24	2	0.02	0.02	39	2	1.34	1.34	38	2	0.88	0.88	37	34.50	19.00	44.00	33
LYC-023	Mine Discharge	1/21/1999	8/8/2002	5.02	16	0.68	0.68	27	16	0.29	0.29	28	16	0.11	0.11	31	16	15.16	15.16	33	16	6.40	6.40	31	30.00	33.00	46.50	34
LYC-104	West side of valley near Rt. 954 Seep 3	5/14/1993	6/8/1993	0.88					2	0.07	0.07	35	2	0.04	0.04	37	2	2.51	2.51	37	2	0.99	0.99	35	36.00	23.60	47.80	35
LYC-020	Mine Discharge	7/27/1994	9/13/2002	11.04	114	0.06	0.06	32	128	0.13	0.13	33	128	0.09	0.09	34	128	15.28	15.28	32	88	0.92	0.92	36	33.40	29.33	48.07	36
LYC-070	Discharge	4/26/2001	4/26/2001	50.00	1	0.15	0.08	30	1	0.09	0.05	36	1	0.09	0.05	36	1	80.82	40.41	26	1	3.24	1.62	34	32.40	36.00	50.40	37
LYC-102	West side of valley near Rt. 954 Seep 1	5/14/1993	6/8/1993	1.50					1	0.05	0.03	38	1	0.04	0.02	38	1	0.78	0.39	39	1	0.11	0.05	39	38.50	28.20	52.60	38
LYC-047	Discharge Sample	6/1/2002	6/1/2002	3.00	1	0.06	0.03	33	1	0.00	0.00	39	1	0.11	0.06	35	1	6.55	3.28	36	1	0.72	0.36	38	36.20	34.67	53.53	39

Table 42
Lower Yellow Creek
Prioritized Sites and General Recommendations

Assessed Rank	Loading Rank	Water Quality Rank	Site Designation/Name	Subwatershed	Principal Problem's	Range of Flows (gpm)	Source Reduction	Aerobic Wetlands	Anaerobic Wetlands	Oxic LS Channel	Anoxic LS Trench	Vertical Flow Reactor	Active Treatment	Comments
1	2	1	LYC-095 Discharge below ACV refuse pit Yellow Creek Proj. YC-25	Yellow Creek	Low flow; Very high AL(586 mg/l), FE (709 mg/l), SO4, Acidity; High MN; Very low pH < 2.40.	10-60						X	X	Extremely high Al concentration requires further evaluation; although the other concentrations also indicate extremely bad water quality; low flows permit passive treatment methods, but high Al precludes use of wetlands or oxic/anoxic LS systems; insufficient information to evaluate source reduction
2	6	6	LYC-088 Judy #14 Discharge Yellow Creek Proj. YC-17	Yellow Creek	Low/moderate flow; Very high AL (64 mg/l); High FE (72 mg/l); High SO4, Acidity; Moderate MN; Very low pH < 2.90.	9-160						X	X	pH and Al values preclude use of wetlands or oxic/anoxic LS systems; insufficient information to evaluate source reduction
3	1	18	LYC-086 Lucerne #2 Borehole under Rt. 119 BCWA Assessment IUP - YC2	Yellow Creek	Moderate/high flow; High Fe (69 mg/l), SO4; Moderate AL (14 mg/l), MN, Acidity; Moderate pH <4.60.	50-6732						X	X	Extremely high flows may make passive treatment problematic; if possible, Al and pH values preclude use of wetlands or oxic/anoxic LS systems; insufficient information to evaluate source reduction
4 15	9 15	4 5	LYC-080 LYC-079 Tide Refuse Pile Seeps Yellow Creek Proj. YC-09, YC-09A	Yellow Creek	Low flow; Very high AL (120 mg/l), SO4; High Fe (81 mg/l), Mn Acidity; Low pH < 3.20.	3-75						X	X	pH and Al values preclude use of wetlands or oxic/anoxic LS systems; insufficient information to evaluate source reduction
9	4	26	LYC-094 Weir at wetlands near Rt. 119 bridge BCWA Assessment IUP - YC3	Yellow Creek	High flow; High FE (69 mg/l), Low AL (5 mg/l), Acidity; Moderate MN, SO4; Moderate pH > 5.50.	150-288		X	X			X		Marginal Al value makes this a site that could possibly use multiple passive treatment techniques, possibly a small vertical drain or SRB, followed by a wetland to capture the volume of iron.
10	14	7	LYC-026 Mine Discharge 32990102 MP-99	Yellow Creek	Low/Moderate flow; High Al (40 mg/l), Mn, SO4; Low Fe (9.6 mg/l); Moderate Acidity; Very low pH < 2.80.	0-250						X	X	pH and Al values preclude use of wetlands or oxic/anoxic LS systems; insufficient information to evaluate source reduction
11	7	23	LYC-097 Deep mine discharge southeast of Tide Yellow Creek Proj. YC-27	Yellow Creek	Moderate/high flow; Low Fe (9 mg/l), Acidity; Moderate Mn, SO4; No Al values; Low pH < 3.50.	23-1200						X	X	Based on location it can be assumed that the Al is high, in spite of having no data; this would preclude use of wetlands or oxic/anoxic LS systems; insufficient information to evaluate source reduction; high flows may require multiple cells or very large system

Table 42
Lower Yellow Creek
Prioritized Sites and General Recommendations

Assessed Rank	Loading Rank	Water Quality Rank	Site Designation/Name	Subwatershed	Principal Problem's	Range of Flows (gpm)	Source Reduction	Aerobic Wetlands	Anaerobic Wetlands	Oxic LS Channel	Anoxic LS Trench	Vertical Flow Reactor	Active Treatment	Comments
16 18 19	16 22 23	8 10 12	LYC-030 LYC-029 LYC-028 Mine Discharges 32990102 MP-104, 105, 106	Yellow Creek	Low flow; High AL (42.1 mg/l); Low FE (5.75 mg/l); High MN, SO4; Moderate Acidity; Very low pH < 3.00.	0-65						X	X	pH and Al values preclude use of wetlands or oxic/anoxic LS systems; insufficient information to evaluate source reduction
17	11	31	LYC-083 Lucierne #3 Mine Yellow Creek Proj. YC-12	Yellow Creek	Moderate flow; Low AL (4.22 mg/l); Moderate Fe (14 mg/l), SO4 Low MN, Acidity; Moderate pH > 5.00.	0-370		X	X			X		Marginal Al value makes this a site that could possibly use multiple passive treatment techniques, possibly a small vertical drain or SRB, followed by a wetland to capture the volume of iron.
20	19	24	LYC-021 Deep Mine Discharge 32940105 MP-T-24	Yellow Creek	Moderate flow; Moderate AL (8 mg/l), FE (29 mg/l), SO4, Acidity; Low MN; Moderate pH > 4.50.	0-100		X	X			X		Marginal Al value makes this a site that could possibly use multiple passive treatment techniques, possibly a small vertical drain or SRB, followed by a wetland to capture the volume of iron.