

**Excerpt from SWRA Phase 1 Monitoring Results Technical Memorandum  
October 2016 to October 2017  
Results for General Water Quality Parameters**

**APPENDIX A – PHASE 1 MONITORING RESULTS FROM OCT 2016 TO OCT 2017**

Table A.1. Results for General Water Quality Parameters, Phase 1

Parameter/ Sampling Date	Alkalinity, total	Ammonia	Bromide	Calcium	Chloride	Color	Dissolved Oxygen (Field Measure)	Foaming Agents (MBAS)	Iron, Dissolved	Iron, Total	Magnesium
Units	mg/l as CaCO <sub>3</sub>	mg/l as N	µg/l	mg/l	mg/l	Color Units	mg/l	mg/l	mg/l	mg/l	mg/l
10/31/16							9.3				
11/14/16	26	0.059	8.8				9.7		0.054	0.16	
11/28/16							10.9				
12/12/16	26	<0.050	8.4	5.9	2.9	5	10.2	<0.10	0.021	0.14	2.6
12/27/16							11.7				
1/9/17	22	<0.050	7.3				9.8		0.087	0.62	
1/23/17	16						10.8		0.098	0.67	
2/13/17	18	<0.050	<5.0				10.9		0.073	0.4	
2/27/17	22						10.7		0.033	0.68	
3/13/17	20	<0.050	<5.0	4.5	<1.0	20	11.0	<0.10	0.067	0.48	1.7
3/13/17 (Duplicate)	21								0.071	0.52	
3/27/17							11.5				
4/10/17	20	<0.050	<5.0				11.5		0.035	0.24	
4/24/17							11.3				
5/8/17	17	<0.050	<5.0				10.6		0.02	0.16	
5/22/17							10.4				
6/12/17	15	<0.050	<5.0	4.7	<1.0	10	10.2	<0.10	0.037	0.29	1.5
6/26/17							10.3				
7/10/17	12	<0.050	<5.0				10.1		0.023	0.19	
7/24/17							10.0				
8/14/17	11	<0.050	<5.0				9.2		<0.02	0.17	
8/28/17							9.2				
9/11/17	11	<0.050	<5.0	2.7	<1.0	5	9.5	<0.10	0.03	0.032	0.97
9/25/17							9.2				
10/9/17	21	<0.050	8.5				9.4		0.068	0.24	

Note: Parameters are monitored either every two weeks, monthly, or quarterly.



Table A.1. Results for General Water Quality Parameters, Phase 1 (Continued)

Parameter/ Sampling Date	Manganese, Dissolved	Manganese, Total	Nitrate	Nitrite	Nitrite + Nitrate	Odor - Threshold	Organic Carbon, Dissolved (DOC)	Organic Carbon, Total (TOC)	pH (Field Measure)	pH (Lab Measure)
Units	µg/l	µg/l	mg/l as N	mg/l as N	mg/l as N	Odor units	mg/l	mg/l	pH units	pH units
10/31/16									6.3 <sup>1</sup>	
11/14/16	<2	15	0.36	<0.05	0.36		2	2.1	8.0 <sup>1</sup>	7.4
11/28/16									9.2 <sup>1</sup>	
12/12/16	4.4	14	0.49	<0.05	0.49	2	2	2	9.2 <sup>1</sup>	7.5
12/27/16									8.9 <sup>1</sup>	
1/9/17	<2	28	0.27	<0.05	0.27		3.9	3.5	7.4	7.4
1/23/17	<2	20					3.2	3.4	7.6	7.3
2/13/17	<2	13	0.17	<0.05	0.17		2.8	7.3	7.9	7.5
2/27/17	<2	22					4.4	3.9	7.8	7.4
3/13/17	<2	13	0.12	<0.05	0.12	2	2.3	2.3	7.4	7.4
3/13/17 (Duplicate)	<2	13					2.2			7.4
3/27/17									7.9	
4/10/17	3.3	210	0.12	<0.05	0.12		2.2	2.8	7.6	7.4
4/24/17									8.2	
5/8/17	<2	10	<0.1	<0.05	<0.1		1.9	2.2	7.7	7.5
5/22/17									7.9	
6/12/17	7.9	29	0.13	<0.05	0.13	2	2.1	2.4	7.7	
6/26/17									7.7	
7/10/17	5	14	<0.1	<0.05	<0.1		2.1	2.1	7.4	7.3
7/24/17									7.7	
8/14/17	4.9	12	<0.1	<0.05	<0.1		1.8	1.9	7.7	7.3
8/28/17									7.4	
9/11/17	3.4	15	<0.1	<0.05	<0.1	2	1.8	1.9	7.2	7.4
9/25/17									7.4	
10/9/17	13	22	0.53	<0.05	0.53		1.8	1.8	7.4	7.3

**Note:** Parameters are monitored either every two weeks, monthly, or quarterly.

<sup>1</sup>Erroneous Measurements.



Table A.1. Results for General Water Quality Parameters, Phase 1 (Continued)

Parameter/ Sampling Date	Potassium	Sodium	Specific Conductance (Field Measure)	Sulfate	Temperature	Total Dissolved Solids (TDS)	Total Suspended Solids (TSS)	Turbidity (Field Measure)	Turbidity (Lab Measure)	UV-254, Dissolved
Units	mg/l	mg/l	µS/cm	mg/l	°C	mg/l	mg/l	NTU	NTU	cm -1
10/31/16			61.5		14.8			2.4	1.3	
11/14/16			61.8		15.5			0.59	0.72	0.05
11/28/16			65		11			1.2	0.65	
12/12/16	1	4.2	67.5	3.6	11.9	54	<10	1.5	1.2	0.052
12/27/16			68.2		7.6			1.8	0.99	
1/9/17			59.3		11.9			7.6	5.5	0.117
1/23/17			47.8		9.9			15.4	12	0.096
2/13/17			51		10.1			7.7	5.6	0.086
2/27/17			68.2		10.9			11.0	7.2	0.07
3/13/17	1	1.9	43.1	2.3	10.7	39	<10	11.8	8.8	0.075
3/13/17 (Duplicate)										0.075
3/27/17			37.9		10.1			7.6	5.4	
4/10/17			43.6		10.7			3.3	2.5	0.065
4/24/17			41.6		10.9			2.8	1.9	
5/8/17			46		12			2.9	1.3	0.065
5/22/17			33.8		12.3			3.5	1.5	
6/12/17	<1	2	36.3	1.6	12.2	36	<10	2.9	1.2	0.064
6/26/17			32.6		13.7			2.0	1.3	
7/10/17			20.8		13.9			2.6	0.58	0.059
7/24/17			27.1		15			2.0	0.83	
8/14/17			28.2		15.1			2.9	0.75	0.055
8/28/17			24.4		15.6			2.0	0.64	
9/11/17	<1	1.5	25.4	1	15.9	25	<10	4.3	1.4	0.052
9/25/17			60.5		16.6			3.1	1.7	
10/9/17			62.7		16.1			1.9	0.72	0.053

Note: Parameters are monitored either every two weeks, monthly, or quarterly.



Table A.2. Results for Inorganic Parameters, Phase 1

Parameter/ Sampling Dates	Units	12/12/16	3/13/17	6/12/17	9/11/17
Aluminum	mg/L	0.046	0.53	0.14	0.087
Antimony	mg/L	<0.0010	<0.0010	<0.0010	<0.0010
Arsenic	mg/L	<0.0010	<0.0010	<0.0010	<0.0010
Asbestos	MFL	<0.20	<0.19	<0.19	<5.8
Barium	mg/L	0.018	0.016	0.011	0.0078
Beryllium	mg/L	<0.0010	<0.0010	<0.0010	<0.0010
Cadmium	mg/L	<0.00050	<0.00050	<0.00050	<0.00050
Chromium (Total)	mg/L	<0.0010	<0.0010	<0.0010	<0.0010
Chromium-6 (Hexavalent)	mg/L	0.000038	0.000028	0.000036	0.000034
Copper	mg/L	<0.0020	<0.0020	<0.0020	<0.0020
Cyanide	mg/L	<0.025	<0.025	<0.025	<0.025
Fluoride	mg/L	<0.050	<0.050	<0.050	<0.050
Lead	mg/L	<0.00050	<0.00050	<0.00050	<0.00050
Mercury (inorganic)	mg/L	<0.00020	<0.00020	<0.00020	<0.00020
Nickel	mg/L	<0.0050	<0.0050	<0.0050	<0.0050
Perchlorate	mg/L	<0.0040	<0.0040	<0.0040	<0.0040
Selenium	mg/L	<0.0050	<0.0050	<0.0050	<0.0050
Silver	mg/L	<0.00050	<0.00050	<0.00050	<0.00050
Thallium	mg/L	<0.0010	<0.0010	<0.0010	<0.0010
Zinc	mg/L	<0.020	<0.020	<0.020	<0.020

Table A.3. Results for Organic Parameters, Phase 1

Parameter/ Sampling Date	Units	12/12/16	12/27/16	3/13/17	6/12/17	9/11/17
1,1,1-Trichloroethane (1,1,1-TCA)	µg/L		<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	µg/L		<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	µg/L		<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane (1,1,2-TCA)	µg/L		<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane (1,1-DCA)	µg/L		<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethylene (1,1-DCE)	µg/L		<0.5	<0.5	<0.5	<0.5
1,2,4-Trichlorobenzene	µg/L		<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	µg/L		<0.5	<0.5	<0.5	<0.5



Parameter/ Sampling Date	Units	12/12/16	12/27/16	3/13/17	6/12/17	9/11/17
1,2-Dichloroethane (1,2-DCA)	µg/L		<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L		<0.5	<0.5	<0.5	<0.5
1,3-Dichloropropane	µg/L		<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene (p-DCB)	µg/L		<0.5	<0.5	<0.5	<0.5
2,3,7,8-TCDD (Dioxin)	pg/L	<5			<2	<1.9
2,4,5-TP (Silvex)	µg/L		<0.2	<0.2	<0.2	<0.2
2,4-Dichlorophenoxyacetic acid (2,4-D)	µg/L		<0.1	<0.1	<0.1	<0.1
Alachlor	µg/L	<0.05	<0.1	<0.1	<0.1	<0.1
Atrazine	µg/L	<0.05	<0.005	<0.05	<0.05	<0.05
Bentazon	µg/L		<0.5	<0.5	<0.5	<0.5
Benzene	µg/L		<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene	µg/L	<0.02		<0.02	<0.02	<0.02
Carbofuran	µg/L		<0.5	<0.5	<0.5	<0.5
Carbon Tetrachloride	µg/L		<0.5	<0.5	<0.5	<0.5
Chlordane	µg/L		<0.1	<0.1	<0.1	<0.1
cis-1,2-Dichloroethylene	µg/L		<0.5	<0.5	<0.5	<0.5
Dalapon	µg/L		<1	<1	<1	<1
Di(2-ethylhexyl)adipate	µg/L	<0.6		<0.6	<0.6	<0.6
Di(2-ethylhexyl)phthalate	µg/L	<0.6		<0.6	<0.6	<0.6
Dibromochloropropane (DBCP)	µg/L		<0.01	<0.01	<0.01	<0.01
Dichloromethane (Methylene chloride)	µg/L		<0.5	<0.5	<0.5	<0.5
Dinoseb	µg/L		<0.2	<0.2	<0.2	<0.2
Diquat	µg/L	<0.4		<0.4	<0.4	<0.4
Endothall	µg/L	<5		<5	<5	<5
Endrin	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Ethyl benzene	µg/L		<0.5	<0.5	<0.5	<0.5
Ethylene Dibromide (EDB)	µg/L		<0.01	<0.01	<0.01	<0.01
Glyphosate	µg/L	<6		<6	<6	<6
Heptachlor	µg/L	<0.03	<0.01	<0.01	<0.01	<0.01
Heptachlor Epoxide	µg/L	<0.05	<0.01	<0.01	<0.01	<0.01
Hexachlorobenzene	µg/L	<0.05		<0.05	<0.05	<0.05
Hexachlorocyclopentadiene	µg/L	<0.05		<0.05	<0.05	<0.05
Lindane	µg/L	<0.04	<0.01	<0.01	<0.01	<0.04
Methoxychlor	µg/L	<0.1		<0.1	<0.1	<0.1



Parameter/ Sampling Date	Units	12/12/16	12/27/16	3/13/17	6/12/17	9/11/17
Methyl tert butyl ether (MTBE)	µg/L		<0.5	<0.5	<0.5	<0.5
Molinate	µg/L	<0.1		<0.1	<0.1	<0.1
Monochlorobenzene (chlorobenzene)	µg/L		<0.5	<0.5	<0.5	<0.5
Oxamyl	µg/L		<0.5	<0.5	<0.5	<0.5
Pentachlorophenol	µg/L	<1	<0.04	<0.04	<0.04	<1
Picloram	µg/L		<0.1	<0.1	<0.1	<0.1
Total Polychlorinated Biphenyls (PCBs)	µg/L		<0.1	<0.1	<0.1	<0.1
Simazine	µg/L	0.69	0.093	<0.005	<0.005	<0.005
Styrene	µg/L		<0.5	<0.5	<0.5	<0.5
Tetrachloroethylene (PCE)	µg/L		<0.5	<0.5	<0.5	<0.5
Thiobencarb	µg/L	<0.2		<0.2	<0.2	<0.2
Toluene	µg/L		<0.5	<0.5	<0.5	<0.5
Total Xylenes	µg/L		<0.5	<0.5	<0.5	<0.5
Toxaphene	µg/L		<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethylene	µg/L		<0.5	<0.5	<0.5	<0.5
Trichloroethylene (TCE)	µg/L		<0.5	<0.5	<0.5	<0.5
Vinyl Chloride	µg/L		<0.3	<0.3	<0.3	<0.3

Table A.4. Results for Disinfection By-Products, Phase 1

Parameter/ Sampling Date	Bromate	Chlorite	Total Haloacetic Acids (HAA5)	Total Trihalomethanes (TTHMs)
Units	µg/L	mg/L	µg/L	µg/L
11/28/16			<2	<0.5
12/12/16	<1	<0.01	<2	<0.5
12/27/16			<2	<0.5
3/13/17	<1	<0.01	<2	<0.5
6/12/17	<1	<0.01	<2	<0.5
9/11/17	<1	<0.01	<2	<0.5



Table A.5. Results for Radionuclides Throughout the Year

Parameter/ Sampling Date	Units	12/12/16	3/13/17	6/12/17	9/11/17
Gross Alpha Particle	pCi/L	<3	<3	<3	<3
Gross Beta Particle	pCi/L	<3	<3	<3	<3
Radium-228 and -226 (combined)	pCi/L	<2	<2	<2	<2
Strontium-90	pCi/L	<0.60	<0.27	<1.3	<0.27
Tritium	pCi/L	<281	<256	<300	<345
Uranium	pCi/L	<0.7	<0.7	<0.7	<0.7

Table A.6. Results for Microbiological Parameters, Phase 1

Parameter/ Sampling Date	<i>Cryptosporidium</i>	<i>E. coli</i>	<i>Giardia</i>	Total Coliform
Units	oocysts/L	MPN/100mL	cysts/L	MPN/100mL
10/31/16		260		>2420
11/14/16	0	17	0.4	1100
11/28/16		26		1700
12/12/16	0	46	0.1	>2420
12/27/16		6.3		820
1/9/17	0	460	0.2	>2420
1/23/17		41		>2420
2/13/17	0.1	79	0.2	1700
2/27/17		39		1700
3/13/17	0	17	0	>2420
3/27/17		25		380
4/10/17	0	7.5	0	770
4/24/17		24		2400
5/8/17	0	96	0	>2420
5/22/17		20		1600
6/12/17	0	31	0	1700
6/26/17		120		>2420
7/10/17	0	43	0	2400
7/24/17		55		>2420
8/14/17	0	75	0	2000
8/28/17		120		>2420
9/11/17	0	91	0	2400
9/25/17		23		>2420
10/9/17	0	39	0	2000





Table A.7. Results for Unregulated Pesticides, Phase 1

Parameter/ Sampling Date	Units	12/12/16	12/27/16	3/13/17	6/12/17	9/11/17
<b>Applied in Watershed - Unregulated, High-Use Pesticides (&gt;5,000 lbs/yr)</b>						
Chloropicrin	µg/L		<0.5	<0.5	<0.5	<0.5
Chlorothalonil (Draconil, Bravo)	µg/L	<0.1		<0.1	<0.1	<0.1
Methyl Bromide	µg/L		<0.5	<0.5	<0.5	<0.5
Oxyfluorfen	µg/L	<0.5		<0.5	<0.5	<0.5
Paraquat Dichloride	µg/L	<2		<2	<2	<2
Pendimethalin	µg/L	<0.1		<0.1	<0.1	<0.1
<b>Additional Unregulated Pesticides Applied in the Watershed, with a Health Advisory Level or Considered for Future Regulation<sup>1</sup></b>						
Carbaryl	µg/L		<0.5	<0.5	<0.5	<0.5
Dimethoate	µg/L	<0.1		<0.1	<0.1	<0.1
Diuron	ng/L		66	<5	9.1	<5
Hexazinone	µg/L	<0.1		<0.1	<0.1	<0.099
Methomyl	µg/L		<0.5	<0.5	<0.5	<0.5
Metolachlor	µg/L	<0.05		<0.05	<0.05	<0.05
Permethrin	µg/L	<0.1		<0.1	<0.1	<0.1
Ziram	µg/L	<5		<5	<5	<5

<sup>1</sup>The following unregulated pesticides were included on the monitoring list, but not analyzed by Eurofins Lab: acephate, tebuconazole, thiamethoxam, and thiophanate-methyl.

Table A.8. Results for Synthetic Organic Compounds, Phase 1

Parameter/ Sampling Date	Units	12/12/16	12/27/16	3/13/17	6/12/17	9/11/17
Diazinon (Qualitative)	µg/L	<0.1		<0.1	<0.1	<0.1
Tertiary butyl alcohol (TBA)	µg/L		<2	<2	<2	<2
Chlorpyrifos (Dursban)	µg/L	<0.05		<0.05	<0.05	<0.05
EPTC	µg/L	<0.1		<0.1	<0.1	<0.1
Malathion	µg/L	<0.1		<0.1	<0.1	<0.1
Trifluralin	µg/L	<0.1		<0.1	<0.1	<0.1



Table A.9. Results for Additional Unregulated Constituents of Interest, Phase 1

Parameter/ Sampling Date	Units	12/12/16	12/27/16	3/13/17	6/12/17	9/11/17
<b>Select Additional Unregulated Constituents of Interest</b>						
1,2,3-Trichloropropane (1,2,3-TCP)	µg/L		<0.5	<0.5	<0.5	<0.5
<b>Additional Unregulated Constituents of Interest Related to Dairy, Poultry and Ranch Operations</b>						
17-β-estradiol	µg/L	<0.0004		<0.0004	<0.0004	<0.0004
17-α-ethynylestradiol	µg/L	0.0025		<0.0009	<0.0009	<0.0009
Estriol	µg/L	<0.0008		<0.0008	<0.0008	<0.0008
Equilin	µg/L	<0.004		<0.004	<0.004	<0.004
Erythromycin	ng/L		<10	<10	<10	30
Estrone	µg/L	<0.002		<0.002	<0.002	<0.002
Testosterone	µg/L	<0.0001	<0.005	<0.0001	0.0001	<0.0001
4-androstene-3,17-dione	µg/L	<0.0003		<0.0003	<0.0003	<0.0003
<b>Select Additional Unregulated Constituents of Interest Related to Algae Occurrence</b>						
Algae Enumeration	Count/mL	24		30	36	42
Chlorophyll A	ng/L	1000		1100	2100	1000
Total Microcystins	µg/L				<0.16	
Cyanotoxins (Microcystins and Nodularin)	µg/L				<0.1	
Cyanotoxins (Anatoxin a and Cylindrospermopsin)	µg/L				<0.1	

Note: Some parameters were sampled quarterly while others were sampled twice a year.

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**APPENDIX A – PHASE 2 MONITORING RESULTS FROM OCT 2017 TO OCT 2018**

Table A.1. Results for General Water Quality Parameters, Phase 2

Parameter/ Sampling Date	Alkalinity, total	Ammonia	Bromide	Calcium	Chloride	Color	Dissolved Oxygen (Field Measure)	Foaming Agents (MBAS)	Iron, Dissolved	Iron, Total	Magnesium
Units	mg/l as CaCO <sub>3</sub>	mg/l as N	µg/l	mg/l	mg/l	Color Units	mg/l	mg/l	mg/l	mg/l	mg/l
10/23/17							9.84				
11/13/17	21	<0.05	10				10.07		0.045	0.1	
11/27/17							9.69				
12/11/17							11.38				
12/28/17							10.93				
1/8/18							10.37				
1/22/18							10.9				
2/12/18							10.98				
2/26/18							11.39				
3/12/18							10.23				
3/26/18							10.68				
4/11/18	15	<0.05	<5	3.9	<1	50	10.44	<0.1	0.16	1.4	1.6
4/25/18							9.78				
5/16/18	14	<0.05	<5				10.41		0.053	0.29	
5/30/18							8.62				
6/13/18	36	<0.05	26				10.80		0.021	0.19	
6/28/18							8.61				
7/11/18							7.66		<0.02	0.24	
7/25/18							7.20				
8/15/18	31	0.0667					7.24		<0.02	0.17	
8/29/18							8.83				
9/12/18	32	0.065	22				8.40	<0.1	0.021	0.19	3.2
9/26/18							9.64				
10/10/18	23						9.72		0.08	1	

Note: Parameters are monitored either every two weeks, monthly, or quarterly.



Table A.1. Results for General Water Quality Parameters, Phase 2 (Continued)

Parameter/ Sampling Date	Manganese, Dissolved	Manganese, Total	Nitrate	Nitrite	Nitrite + Nitrate	Odor - Threshold	Organic Carbon, Dissolved (DOC)	Organic Carbon, Total (TOC)	pH (Field Measure)	pH (Lab Measure)
Units	µg/l	µg/l	mg/l as N	mg/l as N	mg/l as N	Odor units	mg/l	mg/l	pH units	pH units
10/23/17									7.2	
11/13/17	14	20	0.5	<0.05	0.5		1.6	1.9	7.8	7.4 <sup>1</sup>
11/27/17									7.3	
12/11/17								1.6	7.2	
12/28/17									7.2	
1/8/18								1.6	7.6	
1/22/18									7.5	
2/12/18								2	6.9	
2/26/18									6.3	
3/12/18									7.2	
3/26/18									7.4	
4/11/18	2.3	31	<0.1	<0.05	<0.1	2	1.9	2	7.5	7.4 <sup>1</sup>
4/25/18									7.7	
5/16/18	3.4	15	<0.1	<0.05	<0.1			1.9	7.4	7.4 <sup>1</sup>
5/30/18							2.4		7.3	
6/13/18	<2	<2	1.1	<0.05	1.1		2.2	2.5	7.3	7.8 <sup>1</sup>
6/28/18									7.2	
7/11/18	<2	39						1.93	7.2	
7/25/18									7.3	
8/15/18	<2	43	0.83 <sup>1</sup>	<0.05	0.83 <sup>1</sup>		2 <sup>1</sup>		7.3	7.6 <sup>1</sup>
8/29/18									6.7	
9/12/18	<2	39	0.9	<0.05	0.9		1.8	1.73	7.2	7.6 <sup>1</sup>
9/26/18								1.61	7.3	
10/10/18	5.6	30					2.4	1.89	7.5	7.4 <sup>1</sup>
10/23/17									7.2	

**Note:** Parameters are monitored either every two weeks, monthly, or quarterly.

<sup>1</sup>Measurement completed after holding time was exceeded.



Table A.1. Results for General Water Quality Parameters, Phase 2 (Continued)

Parameter/ Sampling Date	Potassium	Sodium	Specific Conductance (Field Measure)	Sulfate	Temperature	Total Dissolved Solids (TDS)	Total Suspended Solids (TSS)	Turbidity (Field Measure)	Turbidity (Lab Measure)	UV-254, Dissolved
Units	mg/L	mg/L	µS/cm	mg/L	°C	mg/L	mg/L	NTU	NTU	cm <sup>-1</sup>
10/23/17			43.2		14.3			1.8	1.4	
11/13/17			58.2		13.4			1.95	0.88	0.0485
11/27/17			51.1		13.8			1.98	1.1	
12/11/17			58.6		9.3			2.45	0.94	
12/28/17			59.1		10.1			1.5	0.85	
1/8/18			58.1		12.2			1.79	0.68	
1/22/18			63.3		10.6			1.68	0.72	
2/12/18			62.4		11.6			2.69	0.5	
2/26/18			57.6		10.1			3.15	0.53	
3/12/18			51.6		14.3			1.68	0.77	
3/26/18			33.5		10.94			3.91	2.7	
4/11/18	<1.0	1.8	120.5	1.6	11.9	36	<10	25.60	17	0.064
4/25/18			32.3		14.5			16.43	12	
5/16/18			27.8		15.1			3.99	2.7	
5/30/18			92.5		21.9			2.21	1.2	0.0545
6/13/18			125.4		23.6			3.93	3.5	0.045
6/28/18			100.1		26.8			4.84	2.5	
7/11/18			97.7		26.3			4.68	3	
7/25/18			92.1		28			3.22	2.6	
8/15/18			105.4		25.8			3.01	2.9	0.04
8/29/18			100.2		24.2			2.70	1.7	
9/12/18	<1.0	6.2	98.1	3.3	23.7	65	<10	2.48	1.5	0.0405
9/26/18			75.9		22.4			2.91	1.8	
10/10/18			59.7		17.2			20.30	20	0.065

**Note:** Parameters are monitored either every two weeks, monthly, or quarterly.



Table A.2. Results for Inorganic Parameters, Phase 1

Parameter/ Sampling Dates	Units	4/11/18	9/12/18
Aluminum	mg/L	1100	68
Antimony	mg/L	<1	<1
Arsenic	mg/L	1.3	<1
Asbestos	MFL	5	<0.2
Barium	mg/L	17	26
Beryllium	mg/L	<1	<1
Cadmium	mg/L	<0.5	<0.5
Chromium (Total)	mg/L	2.9	<1
Chromium-6 (Hexavalent)	mg/L	0.052	0.052
Copper	mg/L	2.8	<2
Cyanide	mg/L	<0.025	<0.025
Fluoride	mg/L	<0.05	<0.05
Lead	mg/L	<0.5	<0.5
Mercury (inorganic)	mg/L	<0.2	<0.2
Nickel	mg/L	<5	<5
Perchlorate	mg/L	<4	<4
Selenium	mg/L	<5	<5
Silver	mg/L	<0.5	<0.5
Thallium	mg/L	<1	<1
Zinc	mg/L	29	<20

Table A.3. Results for Organic Parameters, Phase 2

Parameter/ Sampling Date	Units	4/11/18	9/12/18
1,1,1-Trichloroethane (1,1,1-TCA)	µg/L	<0.5	-
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	µg/L	-	-
1,1,2-Trichloroethane (1,1,2-TCA)	µg/L	<0.5	-
1,1-Dichloroethane (1,1-DCA)	µg/L	<0.5	-
1,1-Dichloroethylene (1,1-DCE)	µg/L	<0.5	-
1,2,4-Trichlorobenzene	µg/L	<0.5	<0.5
1,2-Dichlorobenzene	µg/L	<0.5	-



Parameter/ Sampling Date	Units	4/11/18	9/12/18
1,2-Dichloroethane (1,2-DCA)	µg/L	<0.5	<0.5
1,2-Dichloropropane	µg/L	<0.5	<0.5
1,3-Dichloropropane	µg/L	<0.5	<0.5
1,4-Dichlorobenzene (p-DCB)	µg/L	<0.5	-
2,3,7,8-TCDD (Dioxin)	pg/L	<1.95	<5
2,4,5-TP (Silvex)	µg/L	<0.2	<0.2
2,4-Dichlorophenoxyacetic acid (2,4-D)	µg/L	<0.1	<0.1
Alachlor	µg/L	<0.05	<0.05
Atrazine	µg/L	<0.05	<0.05
Bentazon	µg/L	<0.5	<0.5
Benzene	µg/L	<0.5	<0.5
Benzo(a)pyrene	µg/L	<0.02	<0.02
Carbofuran	µg/L	<0.5	<0.5
Carbon Tetrachloride	µg/L	<0.5	<0.5
Chlordane	µg/L	<0.1	<0.1
cis-1,2-Dichloroethylene	µg/L	<0.5	<0.5
Dalapon	µg/L	<1	<1
Di(2-ethylhexyl)adipate	µg/L	<0.6	<0.6
Di(2-ethylhexyl)phthalate	µg/L	<0.6	<0.6
Dibromochloropropane (DBCP)	µg/L	<0.01	<0.01
Dichloromethane (Methylene chloride)	µg/L	6.1	<0.5
Dinoseb	µg/L	<0.2	<0.2
Diquat	µg/L	<0.4	<0.4
Endothall	µg/L	<5	<5
Endrin	µg/L	<0.2	<0.2
Ethyl benzene	µg/L	<0.5	-
Ethylene Dibromide (EDB)	µg/L	<0.01	<0.01
Glyphosate	µg/L	<6	<6
Heptachlor	µg/L	<0.04	<0.04
Heptachlor Epoxide	µg/L	<0.05	<0.05
Hexachlorobenzene	µg/L	<0.05	<0.05
Hexachlorocyclopentadiene	µg/L	<0.05	<0.05
Lindane	µg/L	<0.04	<0.04
Methoxychlor	µg/L	<0.1	<0.1





Parameter/ Sampling Date	Units	4/11/18	9/12/18
Methyl tert butyl ether (MTBE)	µg/L	<0.5	<0.5
Molinate	µg/L	<0.1	<0.1
Monochlorobenzene (chlorobenzene)	µg/L	<0.5	<0.5
Oxamyl	µg/L	<0.5	<0.5
Pentachlorophenol	µg/L	<0.04	<0.04
Picloram	µg/L	<0.1	<0.1
Total Polychlorinated Biphenyls (PCBs)	µg/L	<0.1	<0.1
Simazine	µg/L	<0.05	<0.05
Styrene	µg/L	<0.5	<0.5
Tetrachloroethylene (PCE)	µg/L	<0.5	<0.5
Thiobencarb	µg/L	<0.2	<0.2
Toluene	µg/L	<0.5	<0.5
Total Xylenes	µg/L	<0.5	<0.5
Toxaphene	µg/L	<0.5	<0.5
trans-1,2-Dichloroethylene	µg/L	<0.5	<0.5
Trichloroethylene (TCE)	µg/L	<0.5	<0.5
Vinyl Chloride	µg/L	<0.3	<0.3

Table A.4. Results for Disinfection By-Products, Phase 2

Parameter/ Sampling Date	Bromate	Chlorite	Total Haloacetic Acids (HAA <sub>5</sub> )	Total Trihalomethane (TTHM)
Units	µg/L	mg/L	µg/L	µg/L
4/11/18	<1	<0.01	<2	<0.5
9/12/18	<1	<0.01	<2	<0.5



Table A.5. Results for Radionuclides, Phase 2

Parameter/ Sampling Date	Units	4/11/18	9/12/18
Gross Alpha Particle	pCi/L	<3	<3
Gross Beta Particle	pCi/L	<3	<3
Radium-228 and -226 (combined)	pCi/L	<2	<2
Strontium-90	pCi/L	<0.764	<1.36
Tritium	pCi/L	<304	<281
Uranium	pCi/L	<0.7	0.88

Table A.6. Results for Microbiological Parameters, Phase 2

Parameter/ Sampling Date	<i>Cryptosporidium</i>	<i>E. coli</i>	<i>Giardia</i>	Total Coliform
Units	oocysts/L	MPN/100mL	cysts/L	MPN/100mL
10/23/17		60		2000
11/13/17	0	40	0	1700
11/27/17		53		2400
12/11/17	0	20	0.095	1100
12/28/17		33		1600
1/8/18	0	25	<0.093	2000
1/22/18		7.5		2000
2/12/18	0	26	<0.093	2400
2/26/18		6.3		1300
3/12/18	0	4.1	0.095	>2419.6
3/26/18		84		2000
4/11/18	0	>23	<0.1	>2419.6
4/25/18		>23		>2419.6
5/16/18	0	>23	<0.093	>2419.6
5/30/18		>23		>2419.6
6/13/18	0	>23	<0.095	>2419.6
6/28/18		630		4600
7/11/18	0	200	0.182	6300
7/25/18		<100		3890
8/15/18		9.7		4300
8/29/18		7.4		7400
9/12/18	0	8	<0.098	3090
9/26/18	0	5	<0.0997	16640
10/10/18	0	60	<0.091	2620



Table A.7. Results for Unregulated Pesticides, Phase 2

Parameter/ Sampling Date	Units	4/11/18	9/12/18
<b>Applied in Watershed - Unregulated, High-Use Pesticides (&gt;5,000 lbs/yr)</b>			
Chloropicrin	µg/L	<0.5	<0.5
Chlorothalonil (Draconil, Bravo)	µg/L	<0.1	<0.1
Methyl Bromide	µg/L	<0.5	<0.5
Oxyfluorfen	µg/L	<0.05	
Paraquat Dichloride	µg/L	<2	<2
Pendimethalin	µg/L	<0.1	<0.1
<b>Additional Unregulated Pesticides Applied in the Watershed, with a Health Advisory Level or Considered for Future Regulation<sup>1</sup></b>			
Carbaryl	µg/L	<0.5	<0.5
Dimethoate	µg/L	<0.1	<0.1
Diuron	ng/L	<0.014	<0.1
Hexazinone	µg/L	<1 <sup>2</sup>	
Methomyl	µg/L	<0.5	<0.5
Metolachlor	µg/L	<0.05	<0.05
Permethrin	µg/L	<0.2	<0.2
Ziram	µg/L	<5	<5

<sup>1</sup>The following unregulated pesticides were included on the monitoring list, but not analyzed by Eurofins Lab: hexazinone, oxyfluorfen, acephate, tebuconazole, thiamethoxam, and thiophanate-methyl.

<sup>2</sup>The laboratory report from Eurofins listed 'absent' for this compound. Follow-up communication with the analysts confirmed that the reporting limit should be between 0.1 and 1 µg/L.

Table A.8. Results for Synthetic Organic Compounds, Phase 2

Parameter/ Sampling Date	Units	4/11/18	9/12/18
Diazinon (Qualitative)	µg/L	<0.1	<0.1
Tertiary butyl alcohol (TBA)	µg/L	<2	<2
Chlorpyrifos (Dursban)	µg/L	<0.05	<0.05
EPTC	µg/L	<0.1	<0.1
Malathion	µg/L	<0.1	<0.1
Trifluralin	µg/L	<0.1	<0.1



Table A.9. Results for Additional Unregulated Constituents of Interest, Phase 2

Parameter/ Sampling Date	Units	4/11/18	9/12/18
<b>Select Additional Unregulated Constituents of Interest</b>			
1,2,3-Trichloropropane (1,2,3-TCP)	µg/L	<0.5	<0.5
<b>Additional Unregulated Constituents of Interest Related to Dairy, Poultry and Ranch Operations</b>			
17-β-estradiol	µg/L	<0.0004	<0.0004
17-α-ethynylestradiol	µg/L	<0.0009	<0.0009
Estriol	µg/L	<0.0008	<0.0008
Equilin	µg/L	<0.004	<0.004
Erythromycin	ng/L	<0.01	<0.01
Estrone	µg/L	<0.002	<0.002
Testosterone	µg/L	<0.0001	<0.0001
4-androstene-3,17-dione	µg/L	<0.0003	<0.0003

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